

ARO

**AIR TOOLS
AIR HOISTS**

**Automation
Tools**

CATALOG 62

THE ARO EQUIPMENT

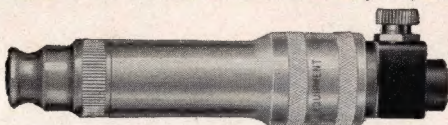


I N D E X

Accessories	23, 24, 26-32
*Automatic Drills	7
Balancers	26
Blow Guns	24
Chucks	14
Drill Speeders	23
Drills	9-13
Electro Dressers	21
Filters and Oilers	12
Grinders	1-4
Hoist Accessories	35-36
Hoists	33-34
Impact Wrenches	19
Mixing Motors	22
*Par-A-Matic Drills	8
Peening Hammer	23
Positive and Adjustable Clutches	20
Power Motors	23
Reel Winder	23
Right-Angle Attachments	24
Sanders and Polishers	5
Screwdrivers and Nutsetters	15-19
Speed Couplers	25
Tappers	14
Tool Room Kit	22
Wire Brush Tools	6

*Automation Tools

Aro Model 7335-A Turbine Grinder, 85,000 RPM



For carbide burring, finish burring, tool and die work, polishing. Minimum collet overhang. Long-life angular-contact bearings eliminate end play. Erickson collet for safety at high speed. Nose piece gives operator firm, comfortable grip. Screw-type air throttle. Takes shaft sizes to 1/4", wheel sizes to 3/8".

GENERAL SPECIFICATIONS. Speed, 85,000 rpm. Length, 6 5/8"; spindle thread, 3/8"-24; spindle offset, 9/16". Collet range, 8 collets from 1/64" to 1/4". Air inlet, 1/8" female N.P.T.

STANDARD EQUIPMENT. No. 30484 7' of 3/16" air hose with Zenith filter and collet wrench; No. 31812-4 1/8" collet.

OPTIONAL EQUIPMENT. No. 31812-1 3/64" collet at small extra charge. Any other collet at right substituted on request without charge.

Collet No.	Size	Capacity	
		Min.	Max.
31812-1	3/64"	1/64"	3/64"
31812-2	5/64"	3/64"	5/64"
31812-3	3/32"	1/16"	3/32"
31812-4	1/8"	3/32"	1/8"
31812-5	5/32"	1/8"	5/32"
31812-6	3/16"	5/32"	3/16"
31812-7	7/32"	3/16"	7/32"
31812-8	1/4"	7/32"	1/4"

Aro Model 7395-A Turbine Grinder Kit

Consists of tool box, Model 7335-A Turbine Grinder, No. 30494 Dressing Stone and four mounted grinding wheels as follows:

30293-102	1/2" x 5/16"	30293-104	1/2" x 3/16"
30293-103	1/2" x 1/4"	30293-105	1/4" x 9/16"



Aro Model 7114-B High-Speed Grinder, 26,000 RPM



For cleaning stamping dies and molds; drilling, burring and grinding. Nose piece gives easy grip, firm control. Minimum air consumption. Erickson Precision Collet.

GENERAL SPECIFICATIONS. Speed, 26,000 rpm. Weight, 13 oz.; length, 6"; air inlet, 1/8" female N.P.T.

STANDARD EQUIPMENT. No. 30484 7' of 3/16" air hose with Zenith filter and collet wrench; No. 31812-8 1/4" collet.

OPTIONAL EQUIPMENT. No. 31812-1 3/64" collet at small extra charge. Any other collet substituted on request, without charge. (For listing, see specifications of Model 7335-A above.)

Aro Short Grinders, 21,000 RPM



MODEL 7015



MODEL 7014

For all grinding, polishing and filing applications, and for rotary burring on aluminum and magnesium castings. May be bench-mounted with No. 7101 holder.

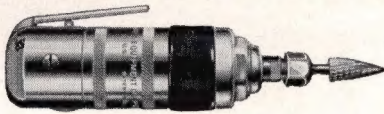
STANDARD EQUIPMENT. Necessary wrenches, No. 30854-3 1/4" collet.

OPTIONAL EQUIPMENT. Choice of 30799 3/8" dia. arbor for 2" wheels; No. 30434 2" extension; No. 30854-1 1/8" collet, No. 30854-2 3/16" collet. No file burrs or wheels included.

GENERAL SPECIFICATIONS. Free speed, 18,000 rpm. Wheel cap., 1 1/2" max. Wght, 13/8 lbs. Spindle thread, 3/8"-24. Length, 5 3/4". Air inlet 1/8" female N.P.T. Built-in speed regulator.

Model No.	Throttle
7014	Button
7015	Lever

Aro Short Grinders, 12,000 and 17,000 RPM



MODEL 7236

High power with small size. For all grinding, polishing and filing work plus rotary burring on aluminum and magnesium castings. May be bench-mounted with No. 7101 holder.

STANDARD EQUIPMENT. Necessary wrenches, No. 30854-3 1/4" collet. Built-in speed regulator and automatic oiler.

OPTIONAL EQUIPMENT. Choice of any one of following: No. 30799 3/8" dia. arbor for 2" wheels; No. 30434 2" extension; No. 30854-1 1/8" collet, No. 30854-2 3/16" collet. No file burrs or wheels included.

GENERAL SPECIFICATIONS. Wheel capacity 2" max. Wgt., 2 lbs. Length, 7 1/16". Air inlet, 1/4" female N.P.T. Spindle thread, 3/8"-24.

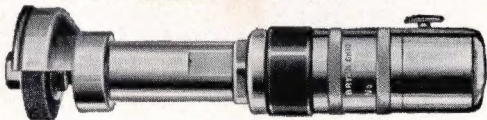
Model	RPM	Throttle
7235	12,000	Button
7236	12,000	Lever
7149	17,000	Button
7153	17,000	Lever

Aro 2" Heavy-Duty Production Grinders



MODEL
7170
Malleable
Housing
18,000 RPM

MODEL
7198
Aluminum
Housing
12,000 RPM



For grinding, burring, rotary file applications; excellent for aluminum and magnesium castings. High speed with high power. Malleable-housing tools have oversize ball bearings.

STANDARD EQUIPMENT. Wrenches, 30298 3/8" arbor, built-in speed regulator, automatic oiler, plus any ONE of the following: 30285 2" extension spindle; 30292-4 1/2" collet; 30504 extension handle; 30569 wheel guard; 30849-1 1/8" collet; 30849-2 3/16" collet, 30949-3 1/4" collet.

OPTIONAL EQUIPMENT at extra charge: 30385 extension; series 33225 Erickson collets . . . dash 4, 1/8", dash 3, 3/16", dash 8, 1/4".

GENERAL SPECIFICATIONS. Wheel cap., 2" elastic, 1 1/2 vitr.; weight less handle & guard, 3 7/8 lbs. on malleable tools, 3 1/4 lbs. on alum. tools; length minus handle, 12"; spindle offset, 29/32"; spindle thread, 5/16"-24; 1/4" female N.P.T. air inlet.

Model	RPM	Throttle		Model	RPM	Throttle	
7198	12,000	Button		7196	12,000	Button	
7199	12,000	Lever		7197	12,000	Lever	
7163	18,000	Button		7171	18,000	Button	
7164	18,000	Lever		7170	18,000	Lever	

Aro Rotary Files, 2,400 RPM



MODEL 7210

Correct speed and power for all types of rotary file work on ferrous castings and burr removing.

STANDARD EQUIPMENT. Wrenches, built-in speed regulator, automatic oiler, choice of one collet . . . 30849-1, 1/8"; 30849-2, 3/16"; 30849-3, 1/4".

OPTIONAL EQUIPMENT at extra cost . . . Erickson collets 33225-4, 1/8"; 33225-6, 3/16"; 33225-8, 1/4".

GENERAL SPECIFICATIONS. Capacity, 1/4" shank files; speed, 2,400 rpm max. Length, 10 1/4"; weight, 2.88 lbs. Spindle offset, 15/16"; spindle thread, 5/16"-24; 1/4" female N.P.T. air inlet.

Model No.	Throttle
7210	Button
7211	Lever

Aro 3" Heavy-Duty Production Grinders



MODEL 7601, 12,000 RPM

For foundries, sheet metal, steel fabrication. All-steel motor housing, heavy-duty bearings on motor and spindle, large spline drives and couplings. Quick-As-Wink throttle (see illus.) slides forward to apply air without turning or locking. Safety models have spring-loaded automatic throttle return (not illustrated). Governor-controlled speed. Governor mounted on thrust-type ball bearings. Tamper-proof external governor adjustment. Aluminum throttle housing, adjustable exhaust ring.

STANDARD EQUIPMENT. Built-in oiler, 3/8" N.P.T.F. air inlet, plus attachment listed below. Wheels not furnished.

GENERAL SPECIFICATIONS. Spindle offset, 11/16"; max. dia., 2 3/4"; average weight, 5 1/2 lbs.; length, Models 7600 through 7607, 16 5/8"; length, Models 7608 through 7623, 18 1/2". 17,000 rpm on special order.

Model No.	Throttle	Wheel Cap.		Speed	Spindle	Standard Attachm't
		Vit.	Bond.			
7600	Q.A.W.	2 1/2"	3"	9,000	5/8"-11	For cone wheels
7601	Q.A.W.	2"	3"	12,000	3/8"-24	33644
7602	Q.A.W.	1 3/4"	2 1/2"	14,000	3/8"-24	Wheel Guard
7603	Q.A.W.	2"	3"	12,000	1/2"-20	
7604	Q.A.W.	1 3/4"	2 1/2"	14,000	1/2"-20	
7605	Q.A.W.	2 1/2"	3"	9,000	3/8"-24	33226-8
7606	Q.A.W.	2"	3"	12,000	3/8"-24	1/4"
7607	Q.A.W.	1 3/4"	2 1/2"	14,000	3/8"-24	Collet
7608	Standard	2 1/2"	3"	9,000	5/8"-11	For cone wheels
7609	Standard	2"	3"	12,000	3/8"-24	33644
7610	Standard	1 3/4"	2 1/2"	14,000	3/8"-24	Wheel Guard
7611	Standard	2"	3"	12,000	1/2"-20	
7612	Standard	1 3/4"	2 1/2"	14,000	1/2"-20	
7613	Standard	2 1/2"	3"	9,000	3/8"-24	33226-8
7614	Standard	2"	3"	12,000	3/8"-24	1/4"
7615	Standard	1 3/4"	2 1/2"	14,000	3/8"-24	Collet
7616	Safety	2 1/2"	3"	9,000	5/8"-11	For cone wheels
7617	Safety	2"	3"	12,000	3/8"-24	33644
7618	Safety	1 3/4"	2 1/2"	14,000	3/8"-24	Wheel Guard
7619	Safety	2"	3"	12,000	1/2"-20	
7620	Safety	1 3/4"	2 1/2"	14,000	1/2"-20	
7621	Safety	2 1/2"	3"	9,000	3/8"-24	33226-8
7622	Safety	2"	3"	12,000	3/8"-24	1/4"
7623	Safety	1 3/4"	2 1/2"	14,000	3/8"-24	Collet

Aro Heavy-Duty Horizontal Grinders



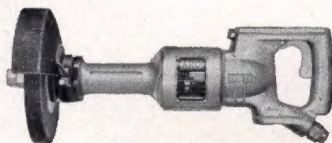
MODEL 7011

For maximum heavy duty in wide range of applications. All-mag motor housing, other castings of magnesium.

Spindle gives comfortable hand grip. Fewer working parts than other comparable tools. Governor-controlled speed. Positive throttle.

STANDARD EQUIPMENT. Wheel guard, built-in oiler, flush fittings, removable air strainer.

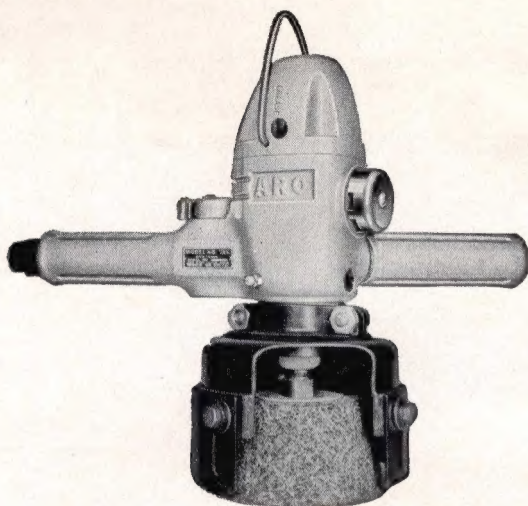
GENERAL SPECIFICATIONS. 3/8" female N.P.T. air inlet. Standard wheel width, 1" min., 2" max. Weight, less wheel guard and wheel, 13 lbs. Spindle offset, 2".



MODEL 7010

Model Numbers		Handle	RPM	Capacity Wheel Dia.		Over-all Length
Std.	Safety Throttle			Vitr.	Elast.	
7010		Spade	4500	6"	8"	20 3/4"
7011	7382	Straight	4500	6"	8"	24 1/4"
7042		Spade	6000	4"	6"	20 3/4"
7043	7383	Straight	6000	4"	6"	24 1/4"
7046		Spade	4200	6"	8"	20 3/4"
7047	7384	Straight	4200	6"	8"	24 1/4"

Aro Vertical Grinders



MODEL 7194-B

More power per pound than other tools. Light, tough magnesium housing. Extra-strong helical gearing, locked to shaft. Governor-controlled speed; thrust-bearing mounting gives governor smoother action and longer life. Easy-access throttle button. Adjustable air exhaust muffler; pre-loaded bearings for longer motor life.

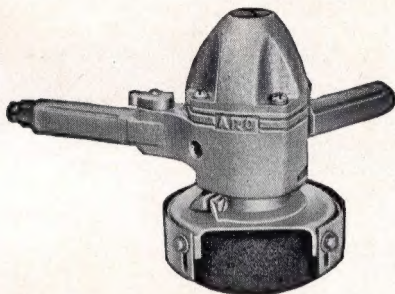
STANDARD EQUIPMENT. 4" wheel guard; suspension bail; 5/8"-11 thd. spindle.

OPTIONAL EQUIPMENT. 4" cup grinding wheel at extra cost.

GENERAL SPECIFICATIONS. Weight, less guard and wheel, 5 lbs. Height to end of spindle, 8 1/2". Speed, 5,000 rpm. Capacity, 4" cup grinding wheel. 3/8" female N.P.T. air inlet.

Model Numbers		
Std.	Safety Throttle	
7194-B	7375-B	

Aro Vertical Grinders



"THE BRUTE" — MODEL 7200

Magnesium housing and handles. Fewer parts than other comparable grinders. Governor-controlled speed. Motor mounted on pre-loaded bearings. Built-in oiler, removable protective screen in air inlet.

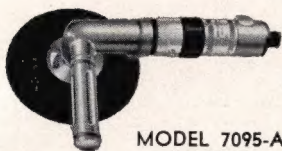
STANDARD EQUIPMENT. 6" cup wheel guard; spanner wrench.

OPTIONAL EQUIPMENT. 6" cup grinding wheel, 5/8"-11 thd., at small extra charge. No. 33002 6" cup grinding wheel without threaded insert (when this wheel is specified, tool will be furnished with No. 32550 Drive Flange and No. 32786 Drive Flange Nut in place of standard drive flange).

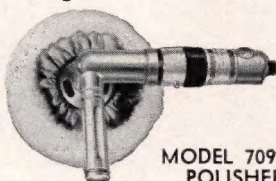
GENERAL SPECIFICATIONS. Weight, less wheel guard, 11 lbs. Height, 9". 5/8"-11 thd. spindle. 3/8" female N.P.T. air inlet. Hose required, 1/2".

Model Numbers		
Std.	Safety Throttle	Free Speed
7200	7377	6000
7278	7378	4500

Aro Right-Angle Sanders, Polishers, Feather Edgers



MODEL 7095-A
SANDER



MODEL 7097-A
POLISHER

For all light sanding, polishing and feather edging. Auxiliary handle for easier control.

STD. EQPMT. Necessary wrenches. Sanders have 7" medium-flexible sanding pad and nut. Polishers have 7" flexible backing pad and lamb's wool bonnet. Feather edgers have spindle adapter only.

OPTIONAL EQUIPMENT. Choice of No. 31859-1, 7" Sanding Pad, Flexible, or No. 31859-2, 7" Sanding Pad, Rigid.

GEN'L SPECS. $\frac{15}{16}$ " spindle offset; wgt., $4\frac{1}{4}$ lbs.; $\frac{1}{4}$ " female N.P.T. air inlet. All spindle threads are $5/8$ "-11.

Model	Description	Throttle	R.P.M.
7095-A	Sander	Button	3500
7096-A	Sander	Lever	3500
7097-A	Polisher	Button	1500
7098-A	Polisher	Lever	1500
7334-A	Fth. Edger	Button	1100
7413	Fth. Edger	Button	2500

Aro Vertical Sanders

MODEL 7025-B



More power per pound than other tools. Light, tough magnesium housing. Extra-strong helical gearing, locked to shaft. Governor-controlled speed; thrust-bearing mounting gives governor smoother action and longer life. Easy-access throttle button. Adjustable air-exhaust muffler; pre-loaded bearings for longer motor life.

STANDARD EQUIPMENT. Suspension bail, No. 30855 Spanner Wrench, 31859-2 7" Medium Sanding Pad, $5/8$ "-11 thd. spindle.

OPTIONAL EQUIPMENT. Choice of one: 9" Sanding Pads . . . 31860-1, flexible; 31860-2, medium; 31860-3, rigid; or 7" Sanding Pads . . . 31859-1, flexible; 31959-3, rigid.

GENERAL SPECIFICATIONS.

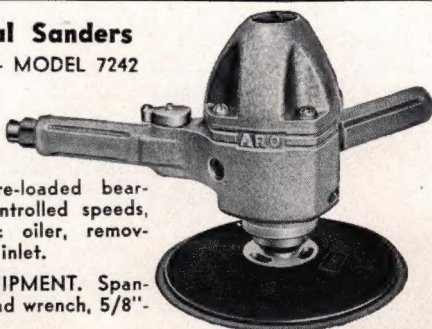
Weight less pad, 5 lbs.; height to end of spindle, $8\frac{1}{2}$ ". Speed, 5,000 rpm; capacity up to 9" pad. Air inlet $3/8$ " female N. P.T. Built-in automatic oiler.

Model Numbers	
Std.	Safety Throttle
7025-B	7374-B

Aro Vertical Sanders

"THE BRUTE" — MODEL 7242

Magnesium housing, fewer working parts, motor mounted with pre-loaded bearings. Governor-controlled speeds, built-in automatic oiler, removable screen in air inlet.



STANDARD EQUIPMENT. Spanner wrench and pad wrench, $5/8$ "-11 thd. spindle.

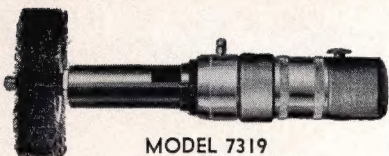
OPTIONAL EQUIPMENT AT EXTRA CHARGE. Recessed wheel adapter, wrench, No. 31860-3 9" rigid sanding pad.

GENERAL SPECIFICATIONS. Weight, less pad, 11 lbs. Height, 9". Air inlet, $3/8$ " female N.P.T. Hose req'd, $1/2$ ".

Model Numbers		RPM
Std.	Safety Throttle	
7242	7380	6,000
7279	7379	4,500

Aro Wire-Brush Tools

"22" SERIES



MODEL 7319

Light weight, with correct combination of speed and power for wire brush applications.

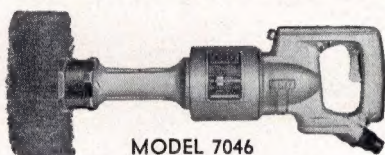
GENERAL SPECIFICATIONS. 4" wire brush capacity. Adj. speed, 2,400 rpm max.; length, 10 $\frac{1}{4}$ "; weight, 2 $\frac{7}{8}$ lbs.; spindle offset, 15/16"; 1/4" female N.P.T. air inlet.

STANDARD EQUIPMENT. Wrenches; built-in speed regulator, automatic oiler, No. 30298 3/8" arbor.

OPTIONAL EQUIPMENT. No. 30246 4" wire brush at extra charge.

Model No.	Throttle
7319	Button
7320	Lever

Aro Heavy-Duty Wire-Brush Tools



MODEL 7046

Al-mag motor housing, magnesium castings. Governor-controlled speed, positive throttle for greater safety. For heavy-duty applications.

GENERAL SPECIFICATIONS. Weight less brush, 13 lbs. Length of spade-handle model, 20 $\frac{3}{4}$ "; length of straight-handle model, 24 $\frac{1}{4}$ ". Spindle offset, 2". Speed, 4,200 rpm. 3/8" female N.P.T. air inlet.

OPTIONAL EQUIPMENT. 6" or 8" wire brush. 6" or 8" spiral wire brush at extra charge. Spiral flange adapter.

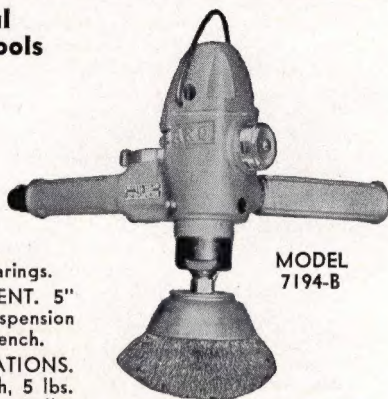
Model Numbers		Handle
Std.	Safety Throttle	
7046		Spade
7047	7384	Straight

Aro Vertical Wire-Brush Tools

Magnesium housing. Strong helical gearing, locked to shaft. Speed controlled by governor mounted on thrust bearing. Easy-access throttle button. Adjustable air-exhaust muffler; pre-loaded motor bearings.

STANDARD EQUIPMENT. 5" cup wire brush, suspension bail, 1" hex socket wrench.

GENERAL SPECIFICATIONS. Weight, less wire brush, 5 lbs. Height to end of spindle, 8 $\frac{1}{2}$ "; Speed, 5,000 rpm. Capacity, 5" cup wire wheel brush. Built-in automatic oiler. Air inlet, 3/8" female N.P.T.



MODEL
7194-B

Model Numbers	
Std.	Safety Throttle
7195-B	7376-B

Aro Vertical Wire-Brush Tools

"THE BRUTE" — MODEL 7243

Magnesium housing, governor-controlled speed, built-in oiler, pre-loaded motor mounting. For heavy-duty applications.

GENERAL SPECIFICATIONS. Speed, 4,500 rpm. Weight less brush, 11 lbs.; height, 9". Air inlet, 3/8" female N.P.T. Hose required, 1/2". 5/8"-11 thd. spindle.

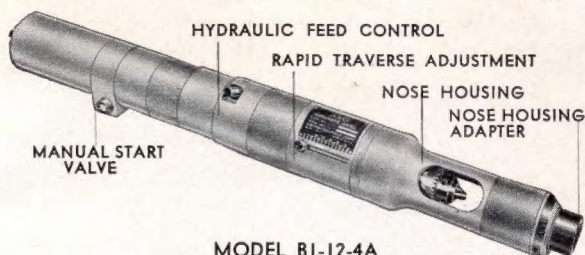
STANDARD EQUIPMENT. Spanner wrench, hex socket wrench.

OPTIONAL EQUIPMENT. 32644 spiral flange adapter; 30279 spiral flange adapter. 6" cup wire brush at small extra charge.



Model Numbers	
Std.	Safety Throttle
7243	7381

Aro Automatic Drills – 2", 4", 6" Stroke Lengths



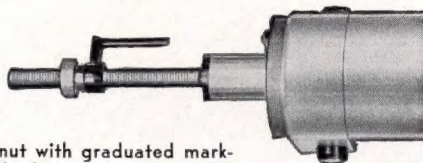
MODEL BI-12-4A
1,200 R.P.M., 4" STROKE

Push-button drilling for faster production and fewer man-hours. Press starting button and Automatic Drill performs a complete cycle, automatically. Motor starts, drill traverses rapidly to the work, feeds at pre-set rate while drilling hole, then retracts and shuts off when hole is completed. Takes thin sheets or tough 4" alloys. Use singly or in combinations, stationary or portable.

FOUR-WAY AIR VALVE. Piston-type poppet valve can be operated manually or by remote control to start cycle and provide automatic return. Air piston which advances drill is accurately controlled, gives minimum wear on working parts.

ADJUSTABLE STROKE LENGTH

Stroke Adjustment Unit (see right) has micrometric adjustment nut with graduated markings; gives extremely fine settings accurate to .002". After setting has been made, pin and knob are tightened firmly against each other.



BUILT-IN AUTOMATIC RETURN. Simple design with fewest working parts. Pin moves forward with drill, and at pre-set point it touches valve which retracts drill, shuts off motor. Enclosed by sleeve (see illustration top of page). **LONGER RAPID-TRAVERSE STROKE.** Cuts costs by reducing time cycle. Can be set while drill is running. Knob is positioned on graduated scale.

INTERCHANGEABLE GEARING FOR SPEED CONVERSION. Any drill can be converted to one of 4 other speeds by adding, removing or substituting gear assemblies. Easily accessible, and can be changed on the job. **HYDRAULIC FEED CONTROL.** Wide range of feed rates. Setting is made while tool is running.

ADJUSTABLE AIR REGULATOR. For fine adjustment of motor speed. Also shuts off air and advances piston for drill changing.

STANDARD AND OPTIONAL EQUIPMENT. 1/2"-20 threaded spindle. Choice of one chuck . . . 1/4", 5/16", 3/8" or 5/64" - 1/2". One Nose Housing Adapter; specify by part number when ordering: 33764, 1 1/4"-12 fem. thd.; 33751, 1"-14 fem. thd.; 33812, 3/4"-16 fem. thd., 34075, 1 1/2"-12 fem. thd. Liner bushing adapters and drill guide bushings available at extra cost through your Aro distributor.

Model No.	Speed	Over-all Length	Net Weight	Capacity Mild Steel	Capacity Brass, Alum.
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2" STROKE LENGTH — Rapid Traverse Stroke 1 15/16" Maximum

BI-46-2A	4,600	25 7/8"	19 lbs.	1/4"	5/16"
BI-25-2A	2,500	25 7/8"	19 lbs.	5/16"	3/8"
BI-12-2A	1,200	27 1/4"	19 1/2 lbs.	3/8"	1/2"
BI- 6-2A	650	27 1/4"	19 1/2 lbs.	1/2"	1/2"
BI- 3-2A	350	27 1/4"	19 1/2 lbs.	1/2"	1/2"

4" STROKE LENGTH — Rapid Traverse Stroke 2 7/8" Maximum

BI-46-4A	4,600	32 13/16"	21 1/2 lbs.	1/4"	5/16"
BI-25-4A	2,500	32 13/16"	21 1/2 lbs.	5/16"	3/8"
BI-12-4A	1,200	33 3/4"	22 lbs.	3/8"	1/2"
BI- 6-4A	650	33 3/4"	22 lbs.	1/2"	1/2"
BI- 3-4A	350	33 3/4"	22 lbs.	1/2"	1/2"

6" STROKE LENGTH — Rapid Traverse Stroke 4 7/8" Maximum

BI-46-6A	4,600	42 9/16"	27 1/2 lbs.	1/4"	5/16"
BI-25-6A	2,500	42 9/16"	27 1/2 lbs.	5/16"	3/8"
BI-12-6A	1,200	44 3/8"	28 lbs.	3/8"	1/2"
BI- 6-6A	650	44 3/8"	28 lbs.	1/2"	1/2"
BI- 3-6A	350	44 3/8"	28 lbs.	1/2"	1/2"

No. 33905 Auxiliary Handle for Automatic Drill. Used where drill must be lifted by operator after each cycle. Consists of handle and ring. Mounts firmly to drill housing at any position in 360° range.

Aro Par-A-Matic Drills, 1/4" Capacity



MODEL PO-21-2, 2,100 RPM

3-POSITION VALVE ———
 AIR INLET, PISTON, 1/8" N.P.T.F. ———
 AIR INLET, MOTOR, 1/4" N.P.T.F. ———



MANUAL CONTROL VALVE

NEEDLE VALVE

Small, versatile production tools for fast, low-cost drilling and tapping. Widest range of applications. Simple to install and use, either singly or in multiples.

AUTOMATIC OR SEMI-AUTOMATIC OPERATION. 3-position valve near air inlet gives wide latitude for various types of remote-control linkage. Operation can be completely automatic or controlled by a single operator.

MANUAL CONTROL VALVE. Has push-button action, and admits air to motor, at line pressure. Can also be used for porting exhaust air in rapid retraction.

ADJUSTABLE STROKE LENGTH. 3/8" to 2". Adjustable in increments of 1/32". Removal of name plate gives access to stroke-length adjustment screw.

NEEDLE VALVE FEED RATE CONTROL. External adjustment gives precise feed rate control, from smallest fraction up to 8" per second.

POSITIVE PISTON ACTION. Piston is advanced by compressed air against light spring. For rapid retraction, spring returns piston, and exhaust air is freely ported. For controlled retraction, exhaust air is ported through needle valve, which is set for desired rate.

INTERCHANGEABLE GEARS FOR SPEED CONVERSION. Drill can be converted quickly to any of 6 other speeds by adding, removing or substituting gear assemblies. Single motor housing used for single- and double-reduction tools.

STANDARD EQUIPMENT. Aro "0" series motor and gears; 1/4" chuck and key, 3-position valve, manual control valve, needle valve; knurled steel housing.

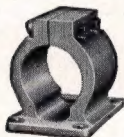
OPTIONAL EQUIPMENT. No. 30510, 5/16" chuck and key; 32377 hose adapter for piston inlet, 1/8" male x 1/8" female N.P.T. No. 34628 Mounting Clamp at extra cost.

GENERAL SPECIFICATIONS. Spindle offset, 1"; housing diameter, 2"; housing length, 10 3/16"; head length, 2 3/16"; distance across flats, 1 3/4"; width of flats, 3/8"; chuck capacity, 1/4"; feed rate up to 8" per second; pounds thrust, 0-160; stroke, 3/8" to 2".

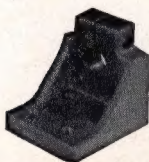
Model No.	Free Speed	Length		Weight Lbs.
		A	B	
PO-170-2	17,000	13 1/2"	15 1/2"	5.75
PO-50-2	5,000	13 1/2"	15 1/2"	5.75
PO-28-2	2,800	13 1/2"	15 1/2"	5.75
PO-21-2	2,100	13 1/2"	15 1/2"	5.75
PO-14-2	1,450	14 3/4"	16 3/4"	6.25
PO-8-2	850	14 3/4"	16 3/4"	6.25
PO-5-2	500	14 3/4"	16 3/4"	6.25

A—Length Retracted.

B—Length Extended.



No. 34628 Mounting Clamp for Par-A-Matic Drill. Fits over knurled section of motor housing and locks firmly to drill, with double bolts. Four holes in base for mounting. Made of light, strong cast aluminum. Does not interfere with any external adjustments on drill.



No. 34925 Stationary Mounting Bracket for Automatic Drills. Made of sturdy ductile iron for heavy-duty use. Bottom and end faces are machined flat and square in relation to mounting hole so that drill axis runs true. Nose housing of Automatic Drill is clamped in mounting hole. Width, 4"; height, 4 1/8"; distance between centers of base holes, 2".

Aro Triple-0 Series Drills



Weight less than 1 1/2 lbs., low air consumption. Tough aluminum housing; lock-in motor; planet gears mounted on self-contained Torrington Needle Bearings (no bushings). Precision spindle mounting; built-in oiler on pistol-grip models.

STD. EQPMT. 1/8" female N.P.T. air inlet; 3/16" chuck and key.

OPTIONAL EQUIPMENT. 1/4" chuck and key.

GEN'L SPECS. Spindle offset, 41/64"; spindle thd., 3/8"-24; pistol grip models 47/8" high, 5 1/2" long; lever models 6" long.

Model	Throttle	Speed
7513	Pistol	1,800
7518	Lever	1,800
7512	Pistol	3,000
7517	Lever	3,000
7525	Pistol	5,000
7524	Lever	5,000
7520	Pistol	17,000
7519	Lever	17,000

Aro Aircraft Drills

17,000 5,000, 2,800, 2,100, 1,450, 850 and 500 RPM



MODEL 7364-B

Wide speed range for practically all applications. Safety-lock trigger prevents tool from starting during drill-bit changing. Slow-speed, high-torque models (1,450 rpm and below) designed for drilling high-tensile-strength alloys, armor plate and stainless steel. Parts interchangeable for model conversion.

STANDARD EQUIPMENT. 3/16" chuck with Model 7369, 1/4" chuck with all other models; chuck key, flat wrench; 1/8" female N.P.T. air inlet.

OPTIONAL EQUIPMENT. No. 30746 Chuck Guard, No. 32703 Auxiliary Handle, No. 30509 3/16" Chuck, No. 30896 3/8" Chuck . . . all at extra cost.

GENERAL SPECIFICATIONS. All tools have spindle offset of 13/16"; height, 5 1/16"; capacity, 3/16" to 1/4" except 17,000 rpm model, 0 to 3/16".

Model	Speed	Length	Weight
7369-A	17,000	6 3/4"	2.4 lbs.
7368-B	5,000	6 3/4"	2.4 lbs.
7364-B	2,800	6 3/4"	2.4 lbs.
7386-B	2,100	6 3/4"	2.4 lbs.
7367-B	1,450	8 1/8"	2.9 lbs.
7366-B	850	8 1/8"	2.9 lbs.
7365-B	500	8 1/8"	2.9 lbs.

Aro Drills

450, 750, 1,100, 2,500, 4,000, 18,000 RPM

MODEL 7137-B



Maximum power with low air consumption. For drilling metals, wood and plastics. Aluminum housings with directional exhaust control.

STANDARD EQUIPMENT. 1/8" female N.P.T. air inlet. 1/4" chuck with 3/16"-1/4" capacity drills; 5/16" chuck with 5/16" capacity drills; chuck key; built-in speed regulator.

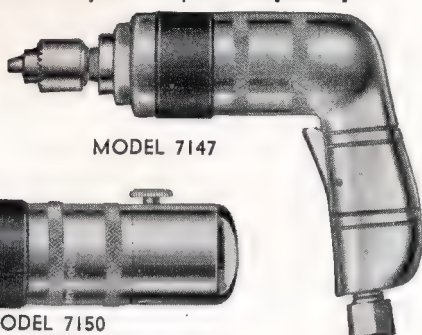
OPTIONAL EQUIPMENT. No. 30509 3/16" chuck; No. 30746 chuck guard at small extra charge.

GENERAL SPECIFICATIONS. Spindle offset, all tools, 13/16".

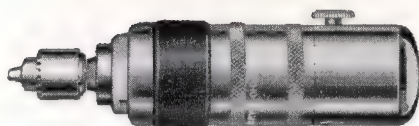
Model	Speed	Length	Weight	Throttle	Capacity
7253-B	450	8 1/4"	2 lbs. 8 oz.	Lever	5/16"
7254-B	450	8 1/4"	2 lbs. 8 oz.	Button	5/16"
7256-B	750	8 1/4"	2 lbs. 8 oz.	Lever	5/16"
7257-B	750	8 1/4"	2 lbs. 8 oz.	Button	5/16"
7259-B	1,100	8 1/4"	2 lbs. 8 oz.	Lever	5/16"
7260-B	1,100	8 1/4"	2 lbs. 8 oz.	Button	5/16"
7139-B	2,500	6 1/2"	1 lb. 13 oz.	Button	3/16"-1/4"
7137-B	2,500	6 1/2"	1 lb. 13 oz.	Lever	3/16"-1/4"
7142-B	4,000	6 1/2"	1 lb. 13 oz.	Button	3/16"-1/4"
7141-B	4,000	6 1/2"	1 lb. 13 oz.	Lever	3/16"-1/4"
7028	18,000	6 1/2"	1 lb. 13 oz.	Button	3/16"-1/4"
7029	18,000	6 1/2"	1 lb. 13 oz.	Lever	3/16"-1/4"

Aro Drills — 1/8" - 1/4" Capacity

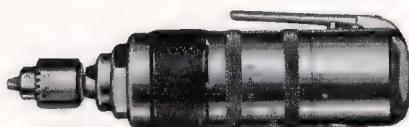
17,000
RPM



MODEL 7147



MODEL 7150



MODEL 7152

For drilling aluminum, magnesium, plastics, wood and light-gauge metals. Light weight in proportion to power. Direct-drive motor with heavy-duty bearings.

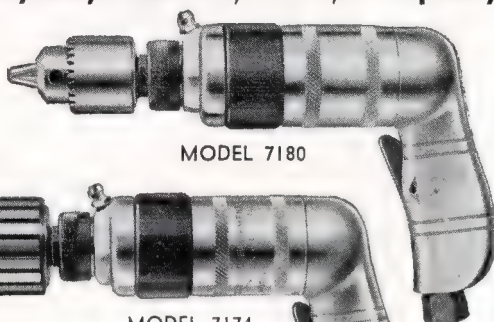
STANDARD EQUIPMENT. Built-in speed regulator, automatic oiler, 1/8" chuck and key, 1/4" female N.P.T. air inlet.

OPTIONAL EQUIPMENT. No. 30509 3/16" chuck and key, No. 30209 1/4" chuck and key.

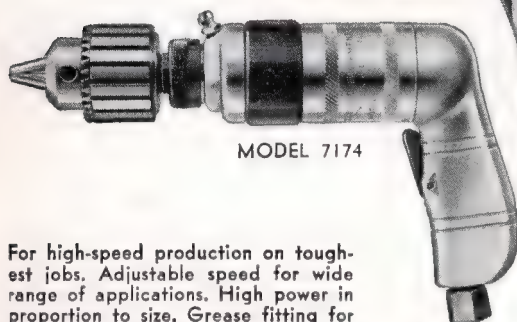
GENERAL SPECIFICATIONS. Max. speed, 17,000 rpm; spindle offset, 29/32". Capacity, 1/8" to 1/4".

Model No.	Throttle	Weight	Length
7147	Pistol	2 lbs. 5 oz.	7"
7150	Button	2 lbs.	7 ³ / ₁₆ "
7152	Lever	2 lbs.	7 ³ / ₁₆ "

Aro Heavy-Duty Drills — 3/16" - 3/8" Capacity



MODEL 7180



MODEL 7174

For high-speed production on toughest jobs. Adjustable speed for wide range of applications. High power in proportion to size. Grease fitting for lubrication of gear system.

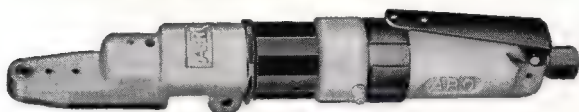
STANDARD EQUIPMENT. Built-in speed regulator, automatic oiler, wrench and chuck key. 3/8" chuck on Model 7180, 1/4" chuck on other models.

OPTIONAL EQUIPMENT. No. 30509 3/16" chuck or No. 30510 5/16" chuck. Available at small extra charge . . . chuck guard for Model 7174, or No. 30896 3/8" chuck for Models 7174, 7175, 7176.

GENERAL SPECIFICATIONS. Spindle offset, all tools, 29/32". 1/4" female N.P.T. air inlet. Free speed 2,500 rpm, load speed 1,000 rpm.

Model No.	Throttle	Weight Lbs.	Length	Chuck
7174	Pistol	2 ¹ / ₂	7 ⁷ / ₈ "	1/4"
7175	Button	2 ³ / ₈	7 ⁷ / ₈ "	1/4"
7176	Lever	2 ³ / ₈	7 ⁷ / ₈ "	1/4"
7180	Pistol	3	8 ³ / ₈ "	3/8"

Aro Flat-Angle Drills and Accessories



MODEL 7438, 1,450 RPM

For all kinds of drilling in close, narrow spaces. Wide range of chucks and adapters. Angle-head adjusts to any position in 360° range, has precision gears mounted on needle bearings for correct speed, longer tool life. Interchangeable tool components for speed conversion. Adjustable exhaust deflector, speed regulator, grease fittings for gear lubrication.

STANDARD EQUIPMENT. 1/8" female N.P.T. air inlet; No. 33500-3 Spindle Adapter Gear with 1/4"-28 female thread; collet wrenches; choice of ONE of following: 33628, 33881 or 33663 Collet; 33665 or 33666 Chuck and Adapter; see detailed listing below and on page 12.

OPTIONAL EQUIPMENT. 33662 Tapered Chuck Adapter for 30442 Jacobs Chuck. Any 33500 Spindle Adapter Gear substituted without charge when specified. See below.

GENERAL SPECIFICATIONS. 1/4" capacity. Spindle offset 5/16". Height of angle head at extreme end, 43/64". Distance from center line of tool to bottom of angle head, 57/64". Length of flat on angle head, 1-15/16". 1" across top of flat angle.

Model	Throttle	RPM	Length	Wt. Lbs.
7437	Button	1450	11"	3.16
7438	Lever	1450	11"	3.16
7439	Lever	2100	9 5/8"	2.63
7440	Button	2100	9 5/8"	2.63
7441	Lever	2500	9 5/8"	2.63
7442	Button	2500	9 5/8"	2.63
7443	Lever	4000	9 5/8"	2.63
7446	Button	4000	9 5/8"	2.63

Accessory Equipment for Flat-Angle Drills

Series 33500 Spindle Adapter Gears. Drive spindle of flat-angle drill is a gear with internal thread. Available in 4 thread sizes according to type of attachment to be used. Can be quickly inserted in flat-angle head after removal of bottom plate.



No.	Thread	Used With
33500-1	5-40	Threaded shank aircraft drills with 5-40 thd.
33500-2	10-32	33668 Chuck, 33665 Chuck & Adapter, or threaded shank aircraft drills with 10-32 thd.
33500-3	1/4"-28	33628 & 33881 Collets, 33662 Adapter, 33666 Chuck & Adapter, 33669 Chuck, threaded shank aircraft drills with 1/4"-28 thd.
33500-4	9/32"-40	33663 Collet.

THREADED SHANK AIRCRAFT DRILLS

Can be mounted on Flat-Angle Drills without need of chuck or collet. Standard drills have 1/4"-28 fem. thd. drive. For drills with other threads, replace 33500-3 Spindle Adapter Gear as shown at right.

Drill Diameter	Thread Size	Adapter Needed
5/64"-11/64"	No. 5-40	33500-1
3/16"-1/4"	No. 10-32	33500-2
17/64"-3/8"	1/4"-28	33500-3
No. 50-No. 13	No. 5-40	33500-1
No. 12-No. 1	No. 10-32	33500-2
Letters A-E	No. 10-32	33500-2
Letters F-W	1/4"-28	33500-3

SERIES 33628 2-PIECE COLLETS

1/4"-28 thd. Over-all length, less thread, 23/32". Use with 33500-3 Adapter. Listed sizes in stock, other sizes on special order. Prices on application. Order by Dash. No.

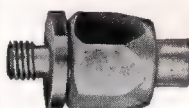
Drill Size	Dash No.	Drill Size	Dash No.	Drill Size	Dash No.
No. 10	-4	No. 20	-14	11/64	-62
No. 11	-5	No. 21	-15	3/16	-63
No. 13	-7	No. 30	-24	1/4	-67



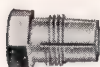
SERIES 33881 3-PIECE COLLETS

1/4"-28 thd. Over-all length, less thread, 29/32". Use with 33500-3 Adapter. Listed sizes in stock, other sizes on special order. Prices on application. Order by Dash. No.

Drill Size	Dash No.	Drill Size	Dash No.	Drill Size	Dash No.
No. 10	-4	No. 20	-14	11/64	-62
No. 11	-5	No. 21	-15	3/16	-63
No. 13	-7	No. 30	-24	1/4	-67



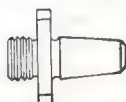
Accessories for Flat-Angle Drills (cont'd)



SERIES 33663 ONE-PIECE COLLETS

9/32"-40 thread. Over-all length, 1/2". Use with 33500-4 Adapter. Listed sizes in stock, other sizes on special order. Prices on application. Order by Dash No.

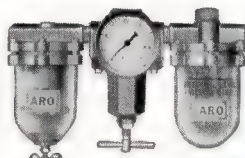
Drill Size	Dash No.	Drill Size	Dash No.
No. 11	-5	No. 40	-34
No. 13	-7	1/8	-59
No. 21	-15	5/32	-61
No. 30	-24	3/16	-63



NO. 33662 CHUCK ADAPTER

Accepts No. 30442 Jacobs Chuck. 1/4"-28 male thread one end, "O" taper other end.

Aro High-Volume Filters, Oilers, Regulators



Model 7405 Filter, Regulator & Oiler

Will deliver up to 85 cubic feet of air per minute, can be used with from one to three air tools, depending on air-pressure requirements. Precision adjustments easily made. Extremely low pressure drop. Inlets and outlets all same size, 1/2" female N.P.T.

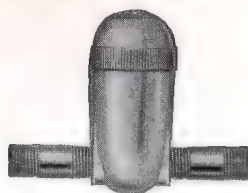
FILTER. No moving parts. 64-micron filtering unit removable for cleaning. Baffle plate traps impurities in quiet zone at bottom of bowl. Drain opening.

OILER. Adjustable feed can be sealed after setting; adjustment position is always visible. Fine micro-fog lubrication helps maintain lower operating temperature in working parts of air tools. Constant flow regardless of amount of oil in bowl. Plug removes for refilling.

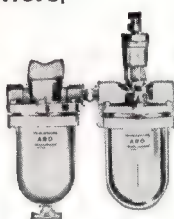
REGULATOR. Greater air flow with minimum pressure drop. Fast response to sudden demand for greater volume. Overcomes pressure surges and chatter. Can be used with separately ordered No. 32500 Pressure Gauge, which registers to 160 lbs.

Model	Description
7401	Filter
7402	Oiler
7403	Filter & Oiler
7404	Air Regulator (order gauge separately)
7405	Filter, Regulator & Oiler (gauge included)

Standard Air Line Filters, Oilers, Regulators



Model 1665 Oiler



Model 7230 Filter & Oiler



Model 1666 Filter

Complete line of best quality equipment to help you get better performance and longer life from air-operated tools and equipment. For best results, it is recommended that not more than two air tools be serviced by any one filter, oiler and regulator.

A. Pipe Size; B. Oil Capacity

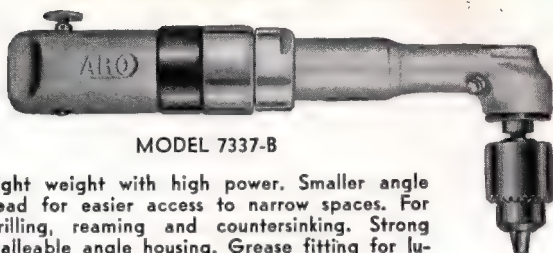
No.	Descrip.	A	B
7005	Oiler	1/4"	1/3
7021	Filt. Oiler	1/4"	Qt.
7223	Regulator	1/4"	
7224	Regulator	3/8"	
7225	Regulator	1/2"	
7226	Filter	3/8"	
7227	Filter	1/2"	
7228	Oiler	3/8"	

No.	Descrip.	A	B
7229	Oiler	1/2"	
7230	Filt.-Oiler	3/8"	
7231	Filt.-Oiler	1/2"	1/2 Pt.
7232	Filt.-Oiler, Reg., Gauge	1/4"	
7233	Filt.-Oiler, Reg., Gauge	3/8"	
7234	Filt.-Oiler, Reg., Gauge	1/2"	

MODEL 1665 OILER. Automatic, with ample capacity for one day's operation. 1/4" male N.P.T. inlets.

MODEL 1666 FILTER. Centrifugal type, for air lines. 1/4" female N.P.T. air inlets.

Aro Right-Angle Drills



MODEL 7337-B

Light weight with high power. Smaller angle head for easier access to narrow spaces. For drilling, reaming and countersinking. Strong malleable angle housing. Grease fitting for lubricating gear system.

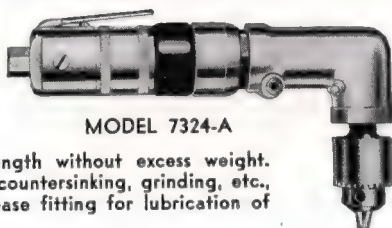
STANDARD EQUIPMENT. Built-in speed regulator; No. 30209 1/4" chuck and key; wrench; 1/8" female N.P.T. air inlet.

GENERAL SPECIFICATIONS. All tools have spindle offset of 21/32". Height of right-angle head, 1 1/16"; height with 1/4" chuck, 3 3/8".

Model	Throttle	Speed	Weight	Length
7336-B	Lever	1,600	2 lbs. 13 oz.	10 3/8"
7337-B	Button	1,600	2 lbs. 13 oz.	10 3/8"

Aro Right-Angle Drills

3/16", 1/4", 5/16",
3/8" CAPACITY



MODEL 7324-A

Extra power and strength without excess weight. For drilling, reaming, countersinking, grinding, etc., in narrow spaces. Grease fitting for lubrication of gear system.

STANDARD EQUIPMENT. Built-in speed regulator, automatic oiler, 2 wrenches. Keys furnished with all chucks (see below).

OPTIONAL EQUIPMENT. No. 30509, 3/16" chuck and key; No. 30510, 5/16" chuck and key.

GENERAL SPECIFICATIONS. All tools have 27/32" spindle offset. Height of right-angle head 2 1/2"; height with 1/4" chuck, or 5/16" chuck, 4 7/16"; height with 3/8" chuck, 4 3/4".

Model	Throttle	Speed	Chuck		Length	Weight
			No.	Size		
7325-A	Button	3,500	30209	1/4"	9 1/2"	4 lbs. 3 oz.
7324-A	Lever	3,500	30209	1/4"	9 1/2"	4 lbs. 3 oz.
7326-A	Button	1,500	30209	1/4"	9 1/2"	4 lbs. 3 oz.
7328-A	Button	1,500	30016	3/8"	9 1/2"	4 lbs. 3 oz.
7327-A	Lever	1,500	30209	1/4"	9 1/2"	4 lbs. 3 oz.
7321-A	Lever	1,500	30016	3/8"	9 1/2"	4 lbs. 3 oz.



MODEL 7450

Aro Heavy-Duty Drills

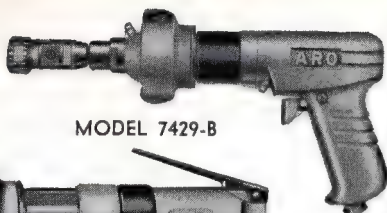
For up to 1/2" heavy-duty production; handles practically all applications without stalling. Model 7450 has double-drive motor for extra power without added weight. Auxiliary handle (Models 7450-7016 only) locks in any position within 360° range. Extra-large heavy-duty ball bearings; grease fitting for lubricating gear system.

STANDARD EQUIPMENT. 1/2" chuck on Models 7450-7016; 3/8" chuck on Model 7145; chuck keys; speed regulator and automatic oiler; wrench; handle with Models 7450 and 7016; 1/4" female N.P.T. air inlet.

GENERAL SPECIFICATIONS. All tools have 1/4" spindle offset.

Model No.	Type of Motor	Speed	Weight	Length	Cap.
7145	Stand.	1,500	5 3/4 lbs.	7 7/8"	3/8"
7016	Stand.	1,000	6 1/4 lbs.	8 5/8"	1/2"
7450	Double-Drive	500	6 1/4 lbs.	8 5/8"	1/2"

Aro Push-Pull Tappers



MODEL 7429-B



MODEL 7292-B

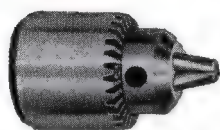
Simple to operate . . . push for forward rotation, pull back for reverse rotation. Action is automatic . . . no need to stop motor or move hand from operating position. Eight speeds for widest range of applications. Slow-speed models give high torque through secondary gear system. Pistol-grip models equipped with Safety-Lock Trigger to ban accidental starting of motor. Jacobs Tapping Chuck.

STANDARD EQUIPMENT. 5/16" Jacobs Tapping Chuck No. 10, complete with wrenches; speed regulator on straight tools, automatic oiler on pistol-grip tools.

OPTIONAL EQUIPMENT. Jacobs Tapping Chuck, 0-1/4" or 5/16"-5/8" at small extra charge.

GENERAL SPECIFICATIONS. All tools have 1/8" female N.P.T. air inlet.

Model	Speed	Throttle	Length	Weight	
7428-B	2,800	Pistol	10 ⁵ / ₁₆ "	3 lbs. 5 oz.	
7273-B	2,500	Button	10 ⁵ / ₁₆ "	2 lbs. 13 oz.	
7272-B	2,500	Lever	10 ⁵ / ₁₆ "	2 lbs. 13 oz.	
7429-B	500	Pistol	11 ⁵ / ₈ "	3 lbs. 13 oz.	
7286-B	450	Button	11 ⁵ / ₈ "	3 lbs. 4 oz.	
7287-B	450	Lever	11 ⁵ / ₈ "	3 lbs. 4 oz.	
7430-B	850	Pistol	11 ⁵ / ₈ "	3 lbs. 13 oz.	
7289-B	750	Button	11 ⁵ / ₈ "	3 lbs. 4 oz.	
7288-B	750	Lever	11 ⁵ / ₈ "	3 lbs. 4 oz.	
7431-B	1,450	Pistol	11 ⁵ / ₈ "	3 lbs. 13 oz.	
7293-B	1,100	Button	11 ⁵ / ₈ "	3 lbs. 4 oz.	
7292-B	1,100	Lever	11 ⁵ / ₈ "	3 lbs. 5 oz.	



Keyed Chucks with Keys

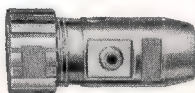
Chuck	Description		Adapter to use		Key No.
	Size	Thread	Straight	Angle	
30442	1/8"	No. 0 Taper	30431		30442K
30509	3/16"	3/8"-24	30056	30628	30509K
30209	1/4"	3/8"-24	30056	30628	30209K
30510	5/16"	3/8"-24	30056	30628	30510K
30016	3/8"	1/2"-20	30014	30629	30016K
30018	1/2" (1/16"-1/2")	1/2"-20	30014	30629	30018K
30896	Special 3/8" for 22 Series Tools	3/8"-24			30896K



Aro Chuck Adapters

No.	Description	
30431	Tapered, for high-speed aircraft drills.	
30056	For 3/16", 1/4" and 5/16" chucks, straight tools.	
30014	For 3/8" and 1/2" chucks, straight tools.	
30628	For high-speed right-angle attachments — 3/16", 1/4" and 5/16" chucks on right-angle tools.	
30629	For high-speed right-angle attachments — 3/8" and 1/2" chucks on right-angle tools.	

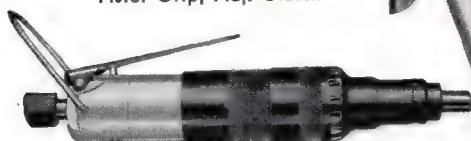
Positive-Drive Tapping Chucks



No.	Capacity	
31427	0 — 1/4".	
31432	No. 10 — 5/16".	
32063	5/16" — 5/8". Use with 32064 Adapter.	

Aro Forward and Reversible Screwdrivers and Nutsetters

MODEL 7507 with
Pistol Grip, Adj. Clutch



MODEL 7502-A with Adjustable Clutch

Light weight, high power, ample speed. Simple construction for easy maintenance. Lever reversible models have instant push-button reverse action with one-hand operation. Pistol-grip models have improved trigger throttle for better control. Choice of positive or adjustable clutch, forward or reversible rotation. Can be converted to nutsetter.

GENERAL SPECIFICATIONS. Spindle offset, all models, 21/32". Height of pistol-grip models, 5 3/16".

STANDARD EQUIPMENT. All tools have 1/4" hex holder, 1/8" female N.P.T. air inlet, 30145-6 bit, 31575-6 finder, wrenches for adjustable-clutch model. Suspension bail with lever tools.

OPTIONAL EQUIPMENT. Choice of one size bit, finder, guide, square-drive adapter or socket.

Model	Throttle	RPM	Rotation	Clutch	Length	Weight
7500-A	Lever	1,800	Rev.	Adj.	7 11/16"	1.40 lbs.
7501	Lever	1,800	Rev.	Pos.	7 1/4"	1.20 lbs.
7502-A	Lever	1,800	Fwd.	Adj.	7 1/4"	1.20 lbs.
7503	Lever	1,800	Fwd.	Pos.	6 13/16"	1.00 lbs.
7506	Pistol	1,800	Fwd.	Pos.	7"	1.65 lbs.
7507	Pistol	1,800	Fwd.	Adj.	7 1/2"	1.70 lbs.
7514	Pistol	1,800	Rev.	Pos.	7"	1.70 lbs.
7515	Pistol	1,800	Rev.	Adj.	7 1/2"	1.75 lbs.

Aro Screwdrivers & Nutsetters, For'd Rotation

From
450 to
2,800
RPM

MODEL 7322-B ADJ. CLUTCH



MODEL 7330-B POS. CLUTCH

Wide range of speeds in lever or pistol-grip models, positive or adjustable clutches. High-torque models (from 450 through 1,450 rpm) give better drive control with less bit breakage, provide extra power and are suitable for self-tapping and cross-recessed-head screws. Can be converted to nutsetters.

STANDARD EQUIPMENT. 1/4" hex holder, 1/8" female N.P.T. air inlet, 30145-8 bit, 31575-8 finder, wrenches for adjustable-clutch tools, suspension bail for lever tools. Speed regulator on lever models, automatic oiler on pistol-grip models.

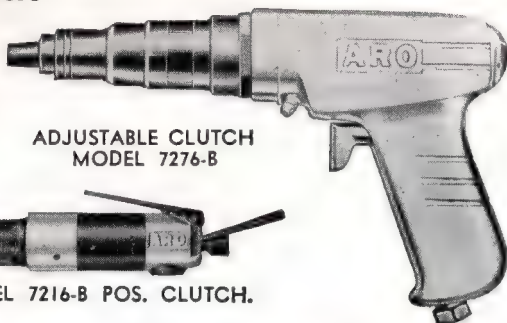
OPTIONAL EQUIPMENT. Choice of one size bit, finder, square-drive adapter or guide.

GENERAL SPECIFICATIONS. All tools have 27/32" spindle offset. Listed capacity is nominal for free-running nuts and machine screws.

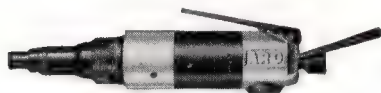
Model	Throttle	RPM	Cap.	Clutch	Length	Weight
7329-B	Lever	2,400	No. 10	Adj.	8 1/16"	1 15/16 lbs.
7296-B	Lever	1,100	No. 12	Adj.	9 5/16"	2 1/2 lbs.
7300-B	Lever	750	1/4"	Adj.	9 5/16"	2 1/2 lbs.
7304-B	Lever	450	5/16"	Adj.	9 5/16"	2 1/2 lbs.
7330-B	Lever	2,400	No. 10	Pos.	7 1/16"	1 3/4 lbs.
7297-B	Lever	1,100	No. 12	Pos.	8 5/16"	2 5/16 lbs.
7301-B	Lever	750	1/4"	Pos.	8 5/16"	2 5/16 lbs.
7305-B	Lever	450	5/16"	Pos.	8 5/16"	2 5/16 lbs.
7322-B	Pistol	2,800	No. 10	Adj.	8 1/16"	2.51 lbs.
7294-B	Pistol	1,450	No. 12	Adj.	9 5/16"	3.03 lbs.
7298-B	Pistol	850	1/4"	Adj.	9 5/16"	3.03 lbs.
7302-B	Pistol	500	5/16"	Adj.	9 5/16"	3.03 lbs.
7331-B	Pistol	2,800	No. 10	Pos.	7 1/16"	2.33 lbs.
7295-B	Pistol	1,450	No. 12	Pos.	8 5/16"	2.85 lbs.
7299-B	Pistol	850	1/4"	Pos.	8 5/16"	2.85 lbs.
7303-B	Pistol	500	5/16"	Pos.	8 5/16"	2.85 lbs.

Aro Forward and Reversible Screwdrivers and Nutsetters

From
275 to
1,000
RPM



ADJUSTABLE CLUTCH
MODEL 7276-B



MODEL 7216-B POS. CLUTCH.

Wide range of speeds in lever or pistol-grip models, positive or adjustable clutches. High-torque models (from 275 through 700 rpm) give better drive control. Pistol-grip models have forward exhaust; reverse button mounted behind motor. Straight tools have reverse button under throttle; choice of short or extended throttle lever. All tools can be converted to nutsetters. **STANDARD EQUIPMENT.** 1/4" hex holder, 1/8" female N.P.T. air inlet, 30145-8 bit, 38575-8 finder, wrenches for adjustable-clutch tools, suspension bail for lever tools, automatic oiler on pistol-grip tools.

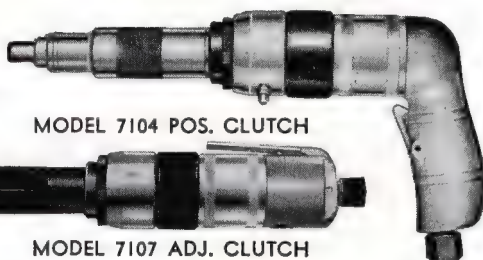
OPTIONAL EQUIPMENT. Choice of one size bit, finder, square-drive adapter or guide.

GENERAL SPECIFICATIONS. All tools have 27/32" spindle offset. Listing below shows nominal capacity for machine screws and free-running nuts.

Model	Throttle	RPM	Cap.	Clutch	Length	Weight
7212-B	Lever	1,000	No. 10	Adj.	8 3/8"	2 3/8 lbs.
7213-B	Lever	700	No. 12	Adj.	9 11/16"	2 13/16 lbs.
7214-B	Lever	400	1/4"	Adj.	9 11/16"	2 13/16 lbs.
7215-B	Lever	275	5/16"	Adj.	9 11/16"	2 13/16 lbs.
7216-B	Lever	1,000	No. 10	Pos.	7 3/8"	2 3/8 lbs.
7217-B	Lever	700	No. 12	Pos.	8 11/16"	2 11/16 lbs.
7218-B	Lever	400	1/4"	Pos.	8 11/16"	2 11/16 lbs.
7219-B	Lever	275	5/16"	Pos.	8 11/16"	2 11/16 lbs.
7276-B	Pistol	1,000	No. 10	Adj.	8 3/8"	2.75 lbs.
7269-B	Pistol	700	No. 12	Adj.	9 1/2"	3.25 lbs.
7268-B	Pistol	400	1/4"	Adj.	9 1/2"	3.25 lbs.
7265-B	Pistol	275	5/16"	Adj.	9 1/2"	3.25 lbs.
7277-B	Pistol	1,000	No. 10	Pos.	7 3/8"	2.65 lbs.
7270-B	Pistol	700	No. 12	Pos.	8 1/2"	3.15 lbs.
7267-B	Pistol	400	1/4"	Pos.	8 1/2"	3.15 lbs.
7266-B	Pistol	275	5/16"	Pos.	8 1/2"	3.15 lbs.

Aro Screwdrivers & Nutsetters, For'd Rotation

Cap. 1/4"
Machine
Screws,
5/16" Nuts



MODEL 7104 POS. CLUTCH



MODEL 7107 ADJ. CLUTCH

For heavy-duty production. Equipped with speed regulator, automatic oiler, grease fitting for lubrication of gear system. Choice of positive or adjustable clutches in lever or pistol-grip models. Can be converted to nutsetters.

STANDARD EQUIPMENT. 1/4" female N.P.T. air inlet, 30145-10 bit, 38575-10 finder, 1/4" hex bit holder; speed regulator and automatic oiler; wrenches for adjustable-clutch tools; suspension bail for lever tools when specified (no charge).

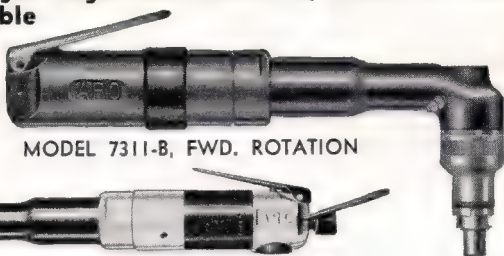
OPTIONAL EQUIPMENT. Choice of one bit size, finder or square-drive adapter and guide.

GENERAL SPECIFICATIONS. All tools have 5/16" spindle offset, nominal capacity of 1/4" screws, 5/16" free-running nuts.

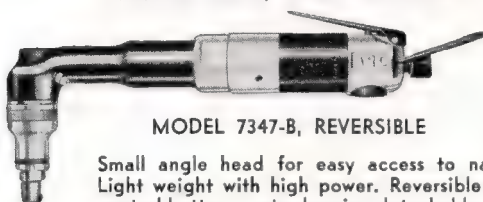
Model	Throttle	RPM	Clutch	Length	Weight
7107	Lever	2,400	Adj.	10 1/2"	2 3/4 lbs.
7102	Lever	2,400	Pos.	9 3/4"	2 3/8 lbs.
7099	Pistol	2,400	Adj.	10 3/8"	2 15/16 lbs.
7104	Pistol	2,400	Pos.	9 7/8"	2 3/4 lbs.

Aro Right-Angle Screwdrivers, Forward and Reversible

For 1/4"
SCREWS
& BOLTS



MODEL 7311-B, FWD. ROTATION



MODEL 7347-B, REVERSIBLE

Small angle head for easy access to narrow spaces. Light weight with high power. Reversible models have control button; motor housing detachable at either end.

Precision-cut gears, built-in speed regulator, grease fitting for lubricating gear system. Choice of positive or adjustable clutch. STANDARD EQUIPMENT. 31575-6 Finder, 30145-6 Bit, suspension bail on lever models, 1/8" female N.P.T. air inlet, wrenches for adjustable clutch.

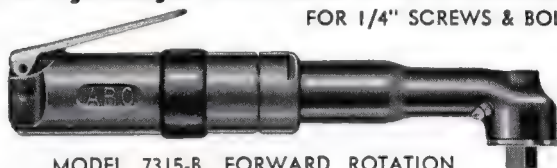
OPTIONAL EQUIPMENT. Choice of bit, finder, guide and square-drive adapter.

GENERAL SPECIFICATIONS. All tools have 21/32" spindle offset, capacity for 1/4" screws and bolts. Height of right-angle head, 4".

Model	Throttle	Rotation	RPM	Clutch	Length	Weight
7347-B	Lever	Rev.	800	Pos.	10 ³ / ₄ "	3 ¹ / ₄ lbs.
7348-B	Lever	Rev.	800	Adj.	10 ³ / ₄ "	3 ¹ / ₂ lbs.
7349-B	Lever	Rev.	480	Pos.	10 ³ / ₄ "	3 ¹ / ₄ lbs.
7350-B	Lever	Rev.	480	Adj.	10 ³ / ₄ "	3 ¹ / ₂ lbs.
7353-B	Lever	Rev.	250	Pos.	12 ¹ / ₁₆ "	3 ³ / ₄ lbs.
7354-B	Lever	Rev.	250	Adj.	12 ¹ / ₁₆ "	3.9 lbs.
7311-B	Lever	Fwd.	1,000	Pos.	10 ⁵ / ₁₆ "	2 ¹ / ₂ lbs.
7312-B	Button	Fwd.	1,000	Pos.	10 ⁵ / ₁₆ "	2 ¹ / ₂ lbs.
7313-B	Lever	Fwd.	1,000	Adj.	10 ⁵ / ₁₆ "	2 ¹ / ₂ lbs.
7314-B	Button	Fwd.	1,000	Adj.	10 ⁵ / ₁₆ "	2 ¹ / ₂ lbs.

Aro Right-Angle Nutsetters, For'd & Reversible

FOR 1/4" SCREWS & BOLTS



MODEL 7315-B, FORWARD ROTATION



MODEL 7343-B, REVERSIBLE

Small angle head for easy access to narrow spaces. Light weight with high power. Reversible models have control button, with motor housing detachable at either end. Precision-cut gears, built-in speed regulator, grease fitting for lubricating gear system. Choice of positive or adjustable clutch.

STANDARD EQUIPMENT. One socket; specify size wanted. Suspension bail on lever models. 1/8" female N.P.T. air inlet, wrenches for adjustable-clutch tool, 3/8" square drive.

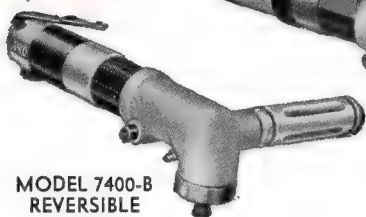
OPTIONAL EQUIPMENT. Choice of socket size.

GENERAL SPECIFICATIONS. All tools have 21/32" spindle offset, capacity for 1/4" screws and bolts. Height of right-angle head, 1⁷/₁₆".

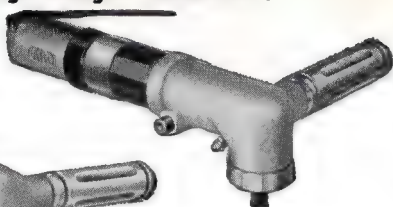
Model	Throttle	Rotation	RPM	Clutch	Length	Weight
7343-B	Lever	Rev.	800	Direct	10 ³ / ₄ "	2.85 lbs.
7344-B	Lever	Rev.	800	Adj.	10 ³ / ₄ "	3.00 lbs.
7345-B	Lever	Rev.	480	Direct	10 ³ / ₄ "	2.85 lbs.
7346-B	Lever	Rev.	480	Adj.	10 ³ / ₄ "	3.00 lbs.
7351-B	Lever	Rev.	250	Direct	12 ¹ / ₁₆ "	3.35 lbs.
7352-B	Lever	Rev.	250	Adj.	12 ¹ / ₁₆ "	3.50 lbs.
7315-B	Lever	Fwd.	1,000	Direct	10 ⁵ / ₁₆ "	2.25 lbs.
7316-B	Button	Fwd.	1,000	Direct	10 ⁵ / ₁₆ "	2.25 lbs.
7317-B	Lever	Fwd.	1,000	Adj.	10 ⁵ / ₁₆ "	2.25 lbs.
7318-B	Button	Fwd.	1,000	Adj.	10 ⁵ / ₁₆ "	2.25 lbs.

Aro Right-Angle Nutsetters

DIRECT DRIVE



MODEL 7400-B
REVERSIBLE



MODEL 7339-B
FORWARD ROTATION

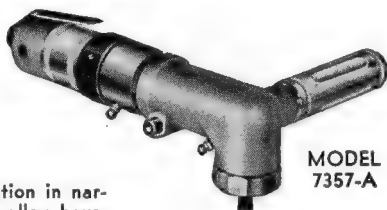
High torque, direct drive, positive control. Reversible models have control button, with motor housing detachable at either end. Equipped with auxiliary handle, speed regulator, grease fitting for lubricating gears.

STANDARD EQUIPMENT. 3/8" square drive, auxiliary handle, 1/8" female N.P.T. air inlet; one socket, size to be specified when ordering.

GENERAL SPECIFICATIONS. All tools have spindle offset of 27/32". Height of angle head, 2 3/8". Clearance from bottom of handle to bottom of angle head, 1 1/8"; from bottom of motor housing to bottom of angle head, 3/4".

Model	Rotation	RPM	Length	Weight	
7339-B	Fwd.	300	9 1/4"	3 3/4 lbs.	
7340-B	Fwd.	500	9 1/4"	3 3/4 lbs.	
7341-B	Fwd.	700	9 1/4"	3 3/4 lbs.	
7400-B	Rev.	500	9 5/8"	4 1/8 lbs.	

Aro Right-Angle Nutsetters DIRECT DRIVE



MODEL
7357-A

For heavy-duty production in narrow spaces. Aluminum alloy housing, speed regulator, automatic oiler, auxiliary handle, grease fitting for lubricating gear system.

STANDARD EQUIPMENT. 3/8" square drive; one socket, size to be specified on order, 1/4" female N.P.T. air inlet.

GENERAL SPECIFICATIONS. All tools have spindle offset of 27/32". Height of angle head, 2 3/8". Clearance from bottom of handle to bottom of angle head, 1 1/8"; from bottom of motor housing to bottom of angle head, 7/8".

Model	Throttle	RPM	Length	Weight	
7356-A	Button	1,500	8 3/4"	4 1/8 lbs.	
7357-A	Lever	1,500	8 3/4"	4 1/8 lbs.	

Aro Heavy-Duty Nutsetters



MODEL
7355

Model 7355 has powerful double-drive motor, built for heavy-duty production work. Large push-throttle, extra-large ball bearings. Built-in speed regulator, automatic oiler, adjustable auxiliary handle.

STANDARD EQUIPMENT. 7/16" hex ball lock adapter No. 31367; 1/4" female N.P.T. air inlet.

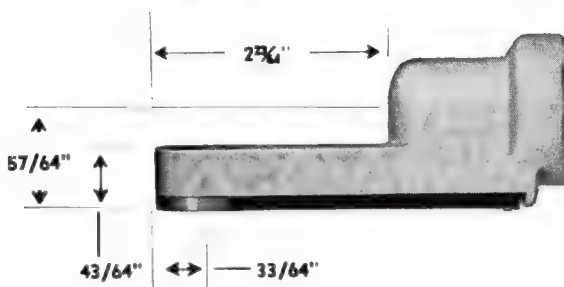
GENERAL SPECIFICATIONS. Spindle offset 1 1/4"; height 6 1/2"; length 7 1/2"; weight 5 5/8 lbs.

Model	Motor	Speed	
7040	Standard	1,000	
7355	Double Drive	500	

Aro Flat-Angle Nutsetters



MODEL 7453, 700 RPM



For close-quarter nutsetting in narrowest space. "Through socket" allows reverse rotation of tool. Angle-head adjusts to any position within 360° range, and can be used with wide range of sockets and adapters. Tool components interchangeable for conversion to different speeds. Precision gears mounted on needle bearings; adjustable exhaust deflector, built-in speed regulator, grease fittings for lubrication of gear systems.

STANDARD EQUIPMENT. Built-in speed regulator, No. 33532-5 3/8" Hex Adapter, 1/8" female N.P.T. air inlet.

OPTIONAL EQUIPMENT. No. 33542, 1/4" Square-Drive Adapter. Hollow-drive hex socket gears available from stock in following sizes: 33532-1, 1/4" hex; 33532-3, 5/16" hex; 33532-7, 7/16" hex. Other sizes available on special order.

GENERAL SPECIFICATIONS. Spindle offset, 57/64" horizontally, 33/64" vertically; top of flat angle 1" wide. Capacity 1/4".

Model	Throttle	RPM	Length	Weight	
7453	Lever	700	11 23/64"	3.21 lbs.	
7454	Button	700	11 23/64"	3.21 lbs.	
7455	Button	1,400	10 3/64"	2.68 lbs.	
7456	Lever	1,400	10 3/64"	2.68 lbs.	

Aro Reversible Impact Wrenches

5/16" CAPACITY

MODEL 7093
1/2" Sq. Drive



MODEL 7092
1/2" Sq. Drive

For up to 5/16" nuts and bolts. Control button for forward or reverse rotation. Torque regulator for driving nuts to correct tension. Simple, durable impact mechanism. Built-in automatic oiler, grease fitting for lubricating gear system.

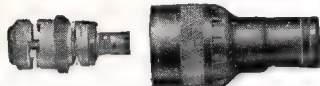
STANDARD EQUIPMENT. Built-in torque regulator, automatic oiler, one socket (specify size wanted). Suspension bail with Models 7093 and 7274. 1/4" female N.P.T. air inlet.

GENERAL SPECIFICATIONS. Spindle offset, all tools, 1 1/32". 5/16" capacity.

3/8" Drive Model	1/2" Drive Model	Throttle	Weight	Length	Height	
7275	7092	Pistol	3 1/4 lbs.	7"	5 3/4"	
7274	7093	Lever	2 3/4 lbs.	6 3/4"		

Positive and Adjustable Clutches for Aro Screwdrivers and Nutsetters

ADJUSTABLE CLUTCHES FOR "000" SCREWDRIVERS. For Models 7500-A, 7501, 7502-A, 7503, etc.



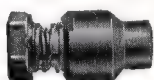
Clutch and Housing Assembly	Adjustable Clutch Assy. & Drive Jaw	Adjustable Clutch Assy. less Drive Jaw
33526	33527	33775

POSITIVE CLUTCHES FOR "000" SCREWDRIVERS. For Aro Models 7500-A, 7501, 7502-A, 7503, etc.



Clutch and Housing Assembly	Clutch Jaw, Bit Holder & Drive Jaw Assy.	Clutch & Bit Holder Assy. less Drive Jaw
33056	33055	33789

33006 ADJUSTABLE CLUTCH FOR "0" SERIES RIGHT-ANGLE SCREWDRIVERS.



For Models 7313-B, 7314-B, 7317-B, 7318-B, 7344-B, etc.

POSITIVE CLUTCH FOR "0" SERIES RIGHT-ANGLE SCREWDRIVERS. (NOT ILLUSTRATED.) For Models 7311-B, 7312-B, 7313-B, 7314-B, 7347-B, etc.

WITH 25° JAWS

31368 Clutch Assy. less Dr. Jaw	
31094 Drive Jaw	
31528 Housing only	

WITH 90° JAWS

32364 Clutch Assy. less Dr. Jaw	
32363 Drive Jaw	
31528 Housing only	

POSITIVE CLUTCH & HOUSING for "0" SERIES SCREWDRIVERS, STRAIGHT AND PISTOL-GRIP MODELS.

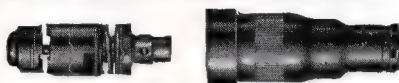


For Models 7330-B, 7216-B, 7331-B, 7277-B, etc.

Clutch Assembly less Drive Jaw	Clutch and Drive Jaw Assembly	Clutch and Housing Assembly
31368	33773	31358

ADJUSTABLE CLUTCHES & HOUSING FOR "0" SERIES SCREWDRIVERS, STRAIGHT AND PISTOL-GRIP MODELS.

For Models 7276-B, 7294-B, 7322-B, 7329-B, etc.



Type		Clutch and Drive Jaw Assy.	Clutch Assembly with Housing	Adjustable Clutch less Drive Jaw
Jaws	Spring	No.	No.	No.
25°	Light	32841	32840	33776
25°	Med.	32839	32838	33777
25°	Heavy	32837	32836	33778
45°	Light	32619	32639	33779
45°	Med.	32621	32640	33780
45°	Heavy	32623	32641	33781

POSITIVE CLUTCH & HOUSING FOR "22" SERIES SCREWDRIVERS. For Models 7102, 7103, 7104, etc.



Bit Holder and Clutch Jaw	Bit Holder, Clutch Jaws and Spindle	Clutch and Housing Assembly
31622	31623	31621

ADJ. CLUTCHES & HSGS. for "22" SERIES SCREWDRIVERS

For Models 7099, 7100, 7107, etc.

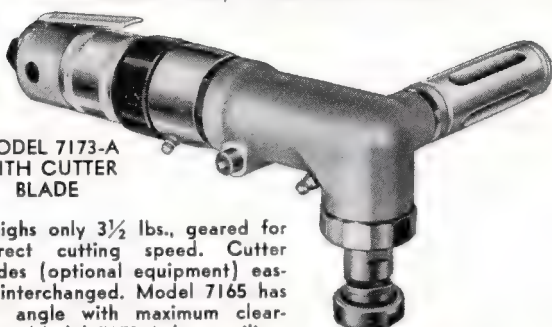


Type		Clutch Assy. and Drive Jaw	Clutch and Housing Assy.	Clutch Assy. less Drive Jaw
Jaws	Spring	No.	No.	No.
25°	Light	32847	32846	33782
25°	Med.	32845	32844	33783
25°	Heavy	32843	32842	33784
45°	Light	32609	32606	33785
45°	Med.	32610	32607	33786
45°	Heavy	32611	32608	33787

Aro Electrode Dressers



MODEL 7165, FLUSH-TYPE CUTTER



MODEL 7173-A
WITH CUTTER
BLADE

Weighs only 3½ lbs., geared for correct cutting speed. Cutter blades (optional equipment) easily interchanged. Model 7165 has flat angle with maximum clearance; Model 7173-A has auxiliary handle and is used where clearance is not a factor. Both tools have built-in speed regulator and automatic oiler. Cutters and holders listed below must be ordered separately. Send sample electrode to insure selection of correct cutter.

GENERAL SPECIFICATIONS. 1/4" N.P.T. air inlet, weight 3½ lbs. Model 7165 spindle offset 31/32", with 3/4" height on flat angle. Model 7173-A spindle offset 27/32"; total height of angle head 2½".

Model	Speed	Length	Weight
7165	1,500	10½"	3½ lbs.
7173-A	1,500	8¾"	3½ lbs.

Flush-Type Electrode Dresser Blade Holders



Use 32288 Guide for .500 Dia. Electrodes.

Use 32443 with .482 I.D. blades	Use 32282 with .625 I.D. blades
.482 I.D.	.625 I.D.

2" Radius



32444

2" Radius



32447

3" Radius



32445

3" Radius



32448

4" Radius



32446

4" Radius



32449

Trunc. Cone



32450

Trunc. Cone



32451

Std. Dome



32454

Std. Dome



32455

Full Dome



32283

Full Dome



32284

Flat



32490

Flat



32488

2½" Radius



32491

Cutter Assembly to Dress Pointed Electrodes

No. 1 Point Tip ¼" Face Electrode

32508



OR

32530



Cutter Assembly to Dress Pointed Electrodes

No. 1 Point Tip 3/16" Face Electrode

32509



OR

32529



Cutter Assembly to Dress Pointed Electrodes

No. 2 Point Tip ¼" Face Electrode

32528



OR

32510



Electrode Tip Dresser Assy., Extended Type

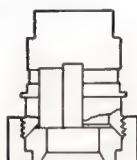
To Dress ½ & ⅝" Dome Electrode

32299-1 for ½"

32299-3 for ⅝"

For Models 7165 & 7173-A

Use with Cutter Blade

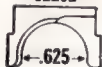


32291



OR

32292



Aro Mixing Motors & Accessories

For rapid mixing or stirring of chemicals, paints, foods, confections, etc. Excellent for plating departments. Operates automatically after adjustment for speed and position. Motor in strong steel housing. Air valve mounts on side or end of motor. Recommended for use with 5/16" hose.

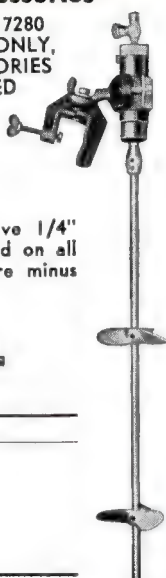
MODEL 7280
MOTOR ONLY,
ACCESSORIES
ADDED

GENERAL SPECIFICATIONS. All motors have 1/4" female N.P.T. air inlet. Needle valve furnished on all models except 7113. Lengths listed below are minus valve.

**MOTOR ONLY.
ORDER
ACCESSORIES
SEPARATELY.**



Model	RPM	Length	Weight
7280-B	500	6 ²⁹ / ₃₂ "	2 ⁷ / ₈ lbs.
7281-B	1,200	6 ²⁹ / ₃₂ "	2 ⁷ / ₈ lbs.
7282-B	4,500	5 1/2"	2 1/2 lbs.
7283-B	2,800	5 1/2"	2 1/2 lbs.
7113	17,000	5 1/2"	2 1/2 lbs.
7284-B	800	6 ²⁹ / ₃₂ "	2 ⁷ / ₈ lbs.



**NO. 31920 BALL
SOCKET CLAMP**

Adjusts 90° vertically,
360° horizontally.

For mounting motor on fluid container. Aluminum alloy, equal in strength to malleable iron.

**STIRRING
ROD
ADAPTERS**



With Allen Wrench. No. 31763 for 1/4" rod. No. 31764 for 1/2" rod.

ALUMINUM PROPELLERS

Also available in stainless steel, at slight extra cost.



Standard sizes shown below. Other sizes available on special order.

Left-hand pitch down-flow	Right-hand pitch up-flow	Used on	Dia.
31679-1	31680-1	1/4" rod	2 1/2"
31679-3	31680-3	1/2" rod	4 1/2"
31679-5	31680-5	1/2" rod	8"

STIRRING RODS

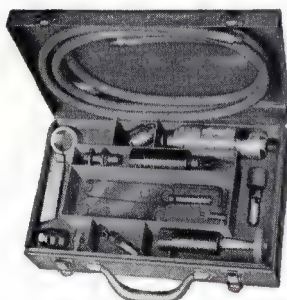
(Not illustrated)

Stainless steel, standard lengths shown at right. Other lengths available on special order.

1/4" Dia. Rod No.	Length	1/2" Dia. Rod No.	Length
31653-1	12"	31652-1	12"
31653-2	18"	31652-2	18"
31653-3	24"	31652-3	24"
		31652-4	32"

Aro Model 7162 Tool Room Kit

Covers most essential tool room needs. Power unit 2,500 rpm; becomes 17,000 rpm with attachment of high-speed grinding arbor. Has speed regulator and automatic oiler. Strong metal box has double hasp and removable tray. Includes all contents below.

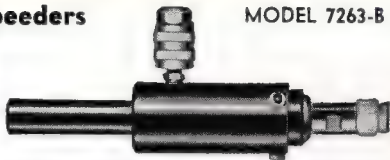


No.	Description	No.	Description
7201	Motor unit	31966	Box only
30132	Rotary file attachment	30293-1	1/4" Shank wheel, 1 x 1"
30284	Grinding attachment	30293-101	1/4" Shank wheel, 1/2 x 1/2"
Y106-5	Spindle wrench for 30284	30294	1/4" Shank rotary file
210	Speed Coupler	30298	Extension grinding arbor
A-2608	Connector for 210	30302	8' of 5/16" hose & ftgs.
30056	Spindle adapter	30285	2" Extension
30100	Tool post clamp	30352	1/4" Shank wheel, 2 x 3/8"
30131	Wrenches (2)	33225-4	1/8" Collet
30193	Protection sleeve	33225-8	1/4" Collets (2)
30209	1/4" Chuck & Key	31973	Tray
30291	Wrench for 30132		

Aro Drill Speeders

MODEL 7263-B

For extra-fast precision drilling when mounted on hand or automatic screw machines. Steel housing for accurate motor mounting. Use with 5/16" hose.



STANDARD EQUIPMENT. Choice of Erickson Collet from 1/64" to 1/4"; Speed Coupler, Connector, wrenches; 1/4" female N.P.T. air inlet; 1" O. D. straight shank, 3 1/2" long.

OPTIONAL EQUIPMENT.

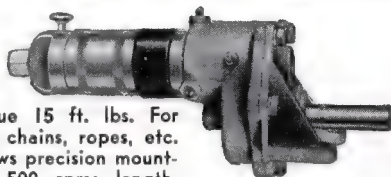
316664 No. 2 Morse Taper Shank, 30510, 5/16" Chuck.

Model No.	RPM
7261-B	800
7262-B	1,200
7263-B	2,800
7264-B	4,500

Aro Reel Winder

MODEL 7166

7/16 h.p., stall torque 15 ft. lbs. For winding hose, cables, chains, ropes, etc. Gear box casting allows precision mounting. Spindle speed, 500 rpm; length, 9 3/4"; weight, 5.9 lbs. Has speed regulator, 5/8" dia. drive shaft, 1/4" female N.P.T. air inlet.



Aro Peening and Scaling Hammer



MODEL 7002

5,000 blows per minute, for peening small parts, removing sand, rust, weld scale, etc. Valveless hammer with hardened alloy tip. Aluminum handle and button throttle. Head height, 2 1/2"; weight, 10 1/2 oz. 1/4" female N.P.T. air inlet.

Aro Forward and Reversible Power Motors

Spindle offset, all tools, 7/8".

1/4" female N.P.T. air inlet.



Special-purpose motors used where top power, small size, variable speed and freedom from electrical shock are needed. For valve operation, lifting, winding, stirring, agitating, etc. Factory will recommend correct motor when you send inquiry stating intended use of motor; speed, horsepower and torque required; spindle size wanted and space in which motor will be used.

Forward Rotation, 3/8"-24 Spindle				Reversible Rotation, 3/8"-24 Spindle			
Model	RPM	Length		Model	RPM	Length	
7306-B	500	6 13/16"		7480	300	6 7/8"	
7307-B	800	6 13/16"		7481	500	6 7/8"	
7308-B	1,200	6 13/16"		7482	850	6 7/8"	
7309-B	2,800	5 5/8"		7483	1,600	6 7/8"	
7310-B	5,000	5 5/8"		7484	3,000	5 1/2"	
Forward Rotation, 3/8" Keyed				Reversible Rotation, 3/8" Keyed			
Model	RPM	Length		Model	RPM	Length	
7490	500	6 9/16"		7485	300	6 11/16"	
7491	800	6 9/16"		7486	500	6 11/16"	
7492	1,200	6 9/16"		7487	850	6 11/16"	
7493	2,800	5 3/16"		7488	1,600	6 11/16"	
7494	5,000	5 3/16"		7489	3,000	5 5/16"	



Aro Tool Post Holders

No. 30507 for Aro Turbine Grinders.

No. 30100 for Aro 2" Production Grinders.

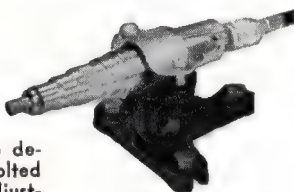
Aro Model 7444 Blow Gun

Uses compressed air for cleaning in production work, machine shops, paint shops, etc. Button throttle gives absolute control of air blast. Comfortable hand-fit design. Flow volume can be pre-set at factory when specified on customer order. One-piece cast housing, 1/4" female N.P.T. air inlet.



Aro Model 7101 Tool Mounting Fixture

Used where both hands are needed to bring work to tool. Takes portable air or electric tools, up to 2" O.D. Adjusts to desired working angle. Can be bolted or clamped to work surface. Adjustments made with standard end wrenches. Furnished with lag bolts for mounting, felt pad for tool.



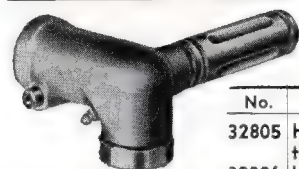
Right-Angle Attachments without Handle

No.	Description
32973	High speed, 3/8"-24 thd. drive
32974	Low speed, 3/8"-24 thd. drive
32975	Low speed REVERSIBLE, 3/8" sq. drive



Can also be furnished with various spindles, adapters or 1/4" collet; prices on request.

Right-Angle Attachments with Auxiliary Handle



Can also be furnished with various spindles, adapters or 1/4" Collet; prices on request. Shipped with 3/8"-24 thd. unless otherwise requested.

No.	Description
32805	High speed, 3/8"-24 thd. drive
32806	Low speed REVERSIBLE, 3/8" sq. drive
32807	Low speed, 3/8"-24 thd. drive
33058	High speed, 5/8"-11 thd. drive
33060	Low speed, 5/8"-11 thd. drive

Aro Air Pressure Gauges



No. 32500 (illustrated at left) registers to 160 lbs. pressure; 1/8" N.P.T. inlet at rear.

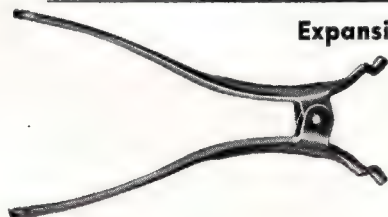
No. A-193 registers to 300 lbs. pressure, has non-breakable crystal. 1/4" standard pipe thread inlet.

Aro Air Regulator No. 30975



Fits any air tool having 1/8" female N.P.T.F. air inlet. Has 1/4" female N.P.T.F. opening for hose attachment. Slotted screw for regulating air.

Expansion Pliers



No. 30534. For removing exhaust deflector ring from motor housing of Aro 0 and 22 series tools or other comparable units.

Aro "Hi-Lo" Speed Couplers & Connectors

FOR ALL TYPES OF AIR-OPERATED EQUIPMENT

Highest air pressure with lowest pressure drop, for increased efficiency and lower operating cost. Wide size selection including male and female threads or hose inserts. Leak-proof seal airtight under any pressure. Small size in proportion to air volume. Corrosion - resistant stainless steel valve.

Easy to connect . . . simply snap coupler and connector together, or pull back lightly on coupler shell to disengage. Tapered contour of coupler shell helps avoid accidental disconnection if shell strikes an obstacle. Can be used with many other brands. Made of cadmium-plated steel with stainless steel valve. Equivalent sizes available in brass, stainless steel or aluminum.



HI-LO COUPLERS & CONNECTORS WITH FEMALE THREADS

Description	1/8" NPT	1/4" NPT	3/8" NPT	1/2" NPT	3/4" NPT
1/4" COUPLER	10-0110	10-0210	10-0310		
CONNECTOR	10-0115	10-0215	10-0315		
3/8" COUPLER		20-0210	20-0310	20-0410	
CONNECTOR		20-0215	20-0315	20-0415	
1/2" COUPLER			30-0310	30-0410	30-0610
CONNECTOR			30-0315	30-0415	30-0615

HI-LO COUPLERS & CONNECTORS WITH HOSE INSERTS

Description	5/16" ID	1/4" ID	5/16" ID	3/8" ID	1/2" ID	3/4" ID
1/4" Coupler	10-3000	10-4000	10-5000	10-6000		
Connector	10-3005	10-4005	10-5005	10-6005		
3/8" Coupler		20-4000	20-5000	20-6000	20-8000	
Connector		20-4005	20-5005	20-6005	20-8005	
1/2" Coupler				30-6000	30-8000	30-1200
Connector				30-6005	30-8005	30-1205

HI-LO COUPLERS & CONNECTORS WITH MALE THREADS

Description	1/8" NPT	1/4" NPT	3/8" NPT	1/2" NPT	3/4" NPT
1/4" COUPLER	10-0100	10-0200	10-0300		
CONNECTOR	10-0105	10-0205	10-0305		
3/8" COUPLER		20-0200	20-0300	20-0400	
CONNECTOR		20-0205	20-0305	20-0405	
1/2" COUPLER			30-0300	30-0400	30-0600
CONNECTOR			30-0305	30-0405	30-0605

Aro Standard Speed Couplers & Connectors

Low-cost units covering wide range of portable air tool requirements. Easy snap-on and snap-apart action, without need of twisting, turning or tightening. Allows hose to swivel freely.



No. 210
Coupler, 1/4"



No. 310 or 310-W
Coupler, 3/8"

Connectors for 1/4" Coupler



A-2607 A-2608 A-2609 A-3947 A-3946

Connectors for 3/8" Coupler



A-3807 A-3871 A-3806 A-3804 1934-W

Standard Aro Couplers and Connectors are not interchangeable with Hi-Lo units described above. Use No. 210 Coupler with 1/4" Connectors and Nos. 310 and 310-W with 3/8" Connectors. Nos. 310-W and 1934-W are used together on water or steam lines; connector has ball check.

No.	Description
210	Coupler, 1/4" female pipe thread.
310	Coupler, 3/8" female pipe thread.
310-W	Coupler, 3/8" female pipe thread, for water or steam lines.
A-2607	Connector, 1/8" male pipe thread.
A-2608	Connector, 1/4" male pipe thread.
A-2609	Connector, 1/4" female pipe thread.
A-3947	Insert for 5/16" and 3/8" hose.
A-3946	Insert for 1/4" hose.

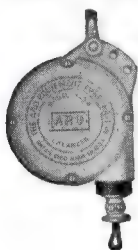
No.	Description
A-3807	Insert for 3/8" hose.
A-3871	Insert for 1/2" hose.
A-3806	Connector, 3/8" female pipe thread.
A-3804	Connector, 3/8" male pipe thread.
1934-W	Connector, 3/8" female pipe thread, for water or steam lines.

Aro Balancers for Portable Air Tools



5 Lbs. — Model 7472 Small size, weighs only 2 lbs. Strong metal housing, flat profile. All outside adjustments; press lever to reduce spring tension, or turn nut to increase. In-line suspension, with cable outlet and mounting eye located in center line of housing. 5 working feet of steel cable, nylon-sheathed.

10 Lbs. — Model 7072 For larger portable tools, up to 10 lbs. In-line suspension. Outside adjustments; turn nut to increase tension or press spring lever to decrease tension. Large, convenient mounting eye. Rubber bumper cushions tool return, can be adjusted to any height. Replace worn cable without disassembly of balancer. 6 working feet of steel cable, nylon-sheathed.



20 Lbs. — Model 7473 Shackle suspension with 3 optional mounting positions for various weight loads. Cable outlet always in vertical position. Tough, light-weight cast aluminum housing. Precision adjustment on spring tension with hardened worm and gear, adjustable from floor level with extension wrench. Internal automatic stand-by safety lock. 6 working feet of nylon-sheathed steel cable.

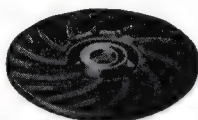
30 Lbs. — Model 7474 Same type of balancer as Model 7473 above, but has 30 lbs. capacity.

No. 30216 Lambswool Bonnet (not illustrated)

For use on 7" pad. Diameter about 9". Best quality pelt with heavy binding, drawstring for fastening to pad.

Spiralcool Backing Pads

Reinforced rubber bonded to aluminum hub. Spiral-contour face creates forced air current which cools sanding disc and helps keep work clean. All pads balanced. Choice of flexible, medium or rigid, in spiral or plain face.



PAD NUMBERS			Dia.	Face	Arbor Hole	
Flexible	Medium	Rigid				
31859-1	31859-2	31859-3	7"	Spiral	5/8-11	
31860-1	31960-2	31860-3	9"	Spiral	5/8-11	
32264-1	32264-2	32264-3	7"	Spiral	5/8-18	
32265-1	32265-2	32265-3	9"	Spiral	5/8-18	
32274-1	32274-2	32274-3	7"	Spiral	1/2-13	
32275-1	32275-2	32275-3	9"	Spiral	1/2-13	
32809-1	32809-2	32809-3	7"	Plain	5/8-11	
32816-1	32816-2	32816-3	7"	Plain	5/8-18	
		32950	5"	Spiral	5/8-11	

Barbed Hose Inserts with Male Pipe Thds.



30466	1/8"	Pipe Thread for	3/16"	Hose.
A-2087	1/8"	Pipe Thread for	1/4"	Hose.
A-217	1/4"	Pipe Thread for	1/4"	Hose.
30127	1/4"	Pipe Thread for	5/16"	Hose.
A-2632	3/8"	Pipe Thread for	1/2"	Hose.
30764	1/8"	Pipe Thread for	5/16"	Hose.

Flexible Air Hose w/ N.P.T.F. Male Fittings



A. Hose Size.			B. Length.			C. N.P.T.F. Male Fittings, each end.		
Part No.	A	B	C		Part No.	A	B	C
30302	5/16"	8'	1/4"		6226-3	3/8"	25'	3/8"
30484	3/16"	7'	*		6226-4	3/8"	30'	3/8"
30508	3/16"	7'	1/8"		31329-1	1/2"	10'	3/8"
30766	5/16"	8'	1/4"		31329-2	1/2"	25'	3/8"
6226-1	3/8"	15'	3/8"		31329-3	1/2"	50'	3/8"
6226-2	3/8"	20'	3/8"					

*30983 Filter one end, 1/8" N.P.T. other end.

Aro Screwdriver Bits and Finders for Slotted Head Screws

1/4" HEX SHANK BITS AND FINDERS

USE



WITH



Use No. 31575 Finders with No. 31574 Retaining Springs. Over-all length of Hex Shank Bits, $1\frac{15}{16}$ ".

Hex Shank Bit No.	Screw Size		Hex Shank Finder No.
	Flat	Round	
30145-2	2	3	31575-2
30145-3	3	3	31575-3
30145-4	4	4	31575-4
30145-5	5	6	31575-5
30145-6	6	8	31575-6
30145-8	8	10	31575-8
30145-10	10	12	31575-10
30145-12	12	14	31575-12

1/4" EXTENSION BITS AND EXTENSION FINDERS



Over-all length of Extension Bits, $3\frac{1}{2}$ "

USE WITH



Use No. 31576 Finders with No. 31574 Retaining Springs.

Extension Bit No.	Screw Size		Extension Finder No.
	Flat	Round	
31370-2	2	3	31576-2
31370-3	3	3	31576-3
31370-4	4	4	31576-4
31370-5	5	6	31576-5
31370-6	6	8	31576-6
31370-8	8	10	31576-8
31370-10	10	12	31576-10
31370-12	12	14	31576-12

1/4" HEX SHANK EXTENSION BIT WITH FINDER

Over-all length, $3\frac{23}{32}$ "



Part No.	Screw Size		Use with Guide No.
	Flat	Round	
30351-5	5	6	30334-5
30351-6	6	8	30334-5
30351-8	8	10	30334-5
30351-10	10	12	30334-2

1/4" HEX SHANK EXTENSION BIT WITH FINDER

Over-all length, $6\frac{23}{32}$ "



Part No.	Screw Size		Use with Guide No.
	Flat	Round	
30382-5	5	6	30334-5
30382-6	6	8	30334-5
30382-8	8	10	30334-5
30382-10	10	14	30334-2

7/16" HEX SHANK EXTENSION BIT WITH FINDER

For Use with Ball Lock Adapters



Part No.	Length Over-all	Screw Size	
		Flat	Round
31499	$3\frac{3}{4}$ "	6	8
31500	$3\frac{3}{4}$ "	8	10
31501	$3\frac{7}{8}$ "	10	12
31502	$3\frac{7}{8}$ "	12	14
31549	$4\frac{1}{8}$ "	14	16
31553	$4\frac{1}{8}$ "	16	18

GUIDE FOR PHILLIPS BITS, EXTENSION BIT FINDER AND SQUARE DRIVE ADAPTER



Guide No.	For Drive Size	Length Over-all
30334-1	1/4"	27/32"
30334-2	3/8"	27/32"
30334-3	29/64"	27/32"
30334-4	3/16"	27/32"
30334-5	5/16"	27/32"

Aro Screwdriver Bits and Holders for Phillips, Reed & Prince and Allen Head Screws

1/4" HEX PHILLIPS BITS AND GUIDES

USE



WITH



Bit No.	Over-all Length	Point Size	Use with Guide No.
30320-1	1 15/16"	1	30334-4
30320-2	1 15/16"	2	30334-1
30320-3	1 15/16"	3	30334-5

On Wood Screws and Machine Screws with Phillips Drive, select bits as follows:

No. 4 and smaller

No. 1 Phillips Bit

No. 5 to No. 10

No. 2 Phillips Bit

No. 12 to 1/4"

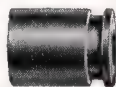
No. 3 Phillips Bit

1/4" HEX REED & PRINCE BITS

USE



WITH



Bit No.	Over-all Length	Point Size	Use with Guide No.
30776-1	1 15/16"	1/4"	30334-1
30776-2	2 3/4"	1/4"	30334-1

Points on all Reed & Prince Bits fit every size screw. Dash numbers listed above apply to bit sizes. Use with No. 30334 Guide illustrated above.

ALLEN HEAD DRIVERS

USE



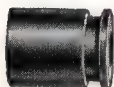
WITH



Driver No.	Over-all Length	Allen Screw Size	Used with Guide No.
30370-2	1 15/16"	3/32" Hex	30334-4
30370-3	1 15/16"	1/8" Hex	30334-1
30370-4	1 15/16"	5/32" Hex	30334-1
30370-5	1 15/16"	3/16" Hex	30334-1

Allen Head Drive Size is determined by ascertaining the size across the flat on the hex broached in the screw head. Use with No. 30334 Guide illustrated above.

BIT HOLDER WITH GUIDE AND RELATED BITS



30334-5 Guide



31150 1/4" Hex Holder



Phillips Bit



Reed & Prince Bit

No. 30334-5 Guide	Phillips Bit No.	Size Screw	Pt.	Reed & Prince No.	Size
No. 31150 1/4" Holder	31151-1	0-4	1	31148	All Sizes
	31151-2	5-10	2		

BIT HOLDER WITH GUIDE AND RELATED BITS



No. 30937 Holder



Allen Head Driver



Phillips Bit



Reed & Prince Bit

No. 30937 holder accepts Phillips Bits, Reed & Prince Bits or Allen Head Drivers listed at right.	Phillips Bit No.	Size Screw	Pt.	Allen Hd. Driver No.	Hex Size
	30939-1	0-4	1	30948-1	3/32"
	30939-2	5-10	2	30948-2	1/8"
	30939-3	12-1/4"	3	30948-3	5/32"
				30948-4	3/16"
				30948-5	7/32"
				30948-6	1/4"
				30948-7	5/16"
				30948-8	3/8"
	Reed & Prince No.	Size			
	30938	All sizes			

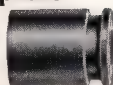
Guides are required for correct application of Phillips, Reed & Prince or Allen Head Bits. Aro Tools ordered with such bits are furnished with 30334-1 or -2 Guide in place of Finder & Spring; we recommend Adjustable-Clutch tools for such bits.

Breakage of Phillips or Reed & Prince Bits is usually caused by (1) tool running too fast; (2) failure to adjust clutch so that it slips out when screw is driven home; (3) use of wrong size bit.

Aro Socket Wrenches and Adapters



1/4" HEX SHANK DRIVERS
Use with 30334 Guide



Driver No.	Sq. Dr. Size	Length	Guide No.
32988-2	1/4"	2"	30334-2
30337-3	3/8"	2"	30334-5
32988-4	1/4"	4"	30334-5

Series
30334

1/4" SQUARE DRIVE HEX SOCKET, Length Over-all, 1"

Single Broach	Double Broach	Socket Size	Socket End O.D.	Drive End O.D.
30617-3	32985-1	1/4"	7/16"	1/2"
30617-4	32985-2	9/32"	15/32"	1/2"
30617-5	32985-3	5/16"	1/2"	1/2"
30617-6	32985-4	11/32"	9/16"	9/16"
30617-7	32985-5	3/8"	9/16"	9/16"
30617-8	32985-6	13/32"	5/8"	5/8"
30617-9	32985-7	7/16"	5/8"	5/8"
30617-10	32985-8	15/32"	11/16"	11/16"
30617-11	32985-9	1/2"	3/4"	3/4"
30617-12	32985-10	17/32"	3/4"	3/4"
30617-13	32985-11	9/16"	13/16"	13/16"
30617-14	32985-12	19/32"	7/8"	7/8"
30617-15	32985-13	5/8"	7/8"	7/8"

1/4" SQUARE DRIVE SOCKET, Extra Long

Length over-all, 1 3/4", except -12 and -13, 2" over-all.
*32987-1 and 32987-2 have 1/2" O.D. on socket end and drive end.

Single Broach	Double Broach	Socket Size	Socket End O.D.	Drive End O.D.
32986-1	32987-1	1/4"	7/16"*	7/16"*
32986-2	32987-2	9/32"	15/32"*	15/32"*
32986-3	32987-3	5/16"	1/2"	1/2"
32986-4	32987-4	11/32"	9/16"	9/16"
32986-5	32987-5	3/8"	9/16"	9/16"
32986-6	32987-6	13/32"	5/8"	5/8"
32986-7	32987-7	7/16"	5/8"	5/8"
32986-8	32987-8	15/32"	11/16"	11/16"
32986-9	32987-9	1/2"	3/4"	3/4"
32986-10	32987-10	17/32"	3/4"	3/4"
32986-11	32987-11	9/16"	13/16"	13/16"
32986-12	32987-12	19/32"	7/8"	7/8"
32986-13	32987-13	5/8"	7/8"	7/8"

3/8" SQUARE DRIVE, SINGLE AND DOUBLE HEXAGON

Length over-all, 7/8", except -10 and -11, 1" over-all.
Double-hex drive furnished only in listed sizes.

Single Hex	Double Hex	Socket Size	Socket End	Drive End
30616-1		5/16"	.476"	11/16"
30616-2		11/32"	.507"	11/16"
30616-3	30616-30	3/8"	.547"	11/16"
30616-4	30616-40	7/16"	.628"	11/16"
30616-5	30616-50	1/2"	.708"	3/4"
30616-6	30616-60	9/16"	.786"	13/16"
30616-7		19/32"	.834"	7/8"
30616-8	30616-80	5/8"	.875"	7/8"
30616-9	30616-90	11/16"	.947"	1"
30616-10	30616-100	3/4"	1.027"	1 1/16"
30616-11	30616-110			

3/8" SQUARE DRIVE, DOUBLE HEXAGON, EXTRA DEEP

Part No.	Socket Size	Outside Diameter		Length Overall
		Socket End	Drive End	
30620-1	3/8"	.560"	21/32"	1 3/4"
30620-2	7/16"	.635"	21/32"	1 3/4"
30620-3	1/2"	.707"	21/32"	1 3/4"
30620-4	9/16"	.770"	23/32"	2"
30620-5	5/8"	.875"	7/8"	2 1/4"
30620-6	11/16"	.937"	15/16"	2 1/2"
30620-7	3/4"	1.000"	31/32"	2 1/2"
30620-8	13/16"	1.062"	1 1/16"	2 1/2"

3/8" SQUARE DRIVE DOUBLE BROACHED SQUARE

Part No.	Socket Size	Outside Diameter		Length Overall
		Socket End	Drive End	
30618-1	1/4"	.500"	3/4"	1 1/2"
30618-2	5/16"	.628"	11/16"	7/8"
30618-3	3/8"	.647"	11/16"	27/32"
30618-4	7/16"	.750"	3/4"	1"
30618-5	1/2"	.875"	7/8"	1"

Aro Socket Wrenches and Adapters



HEAVY-DUTY IMPACT SOCKETS

Part No.	Hex Size		Part No.	Hex Size	
30994-1	1/4"		30994-9	1/2"	
30994-3	5/16"		30994-11	9/16"	
30994-4	11/32"		30994-13	5/8"	
30994-5	3/8"		30994-15	11/16"	
30994-7	7/16"		30994-17	3/4"	

1/2" SQ. DRIVE DEEP HEX IMPACT SOCKETS

1/2" SQ. DR. SINGLE HEX IMPACT SOCKETS

Part No.	Size	
31571-1	3/8"	
31571-2	7/16"	
31571-4	1/2"	
31571-6	9/16"	
31571-8	5/8"	
31571-9	11/16"	
31571-10	3/4"	

Part No.	Size	
31573-1	3/8"	
31573-2	7/16"	
31573-3	1/2"	
31573-4	9/16"	
31573-5	5/8"	
31573-7	3/4"	
31573-8	13/16"	
31573-9	7/8"	
31573-10	15/16"	
31573-11	1"	



EXTENSION BAR

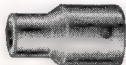
1/4" x 1/4" Square Drive,
3/8" Shank Dia.

Part No.	Length	
32989-1	2"	
32989-2	6"	

THREADED SHANK SOCKET ADAPTERS 3/8"-24 Thread

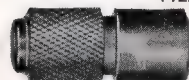


Part No.	Square Drive	Length Overall	
30384-5	3/8"	1 3/4"	
30384-9	1/2"	1 3/4"	

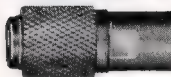


NO. 32990 SQUARE DRIVE ADAPTER
Adapts from 1/2" female to 3/8" male.

HEX BALL-LOCK ADAPTERS



No. 31367, 7/16" hex, for Aro Model 7040 Nutsetter.



No. 30712, 1/4" hex, 3/8"-24 female thd. Used on Aro Right-Angle Attachments. For 7/16" hex, specify No. 30708.



No. 31232, 7/16" hex with 3/8" square drive, for Aro Impact Wrenches.

ADAPTERS



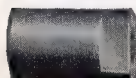
No. 30546, 3/8"-24 fem. thd. to 1/2"-13 male thd. For Aro Short Grinders.



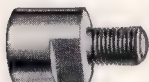
No. 30548 Collet and Extension Adapter, 3/8"-24 male & fem. thds., for Aro Short Grinders.



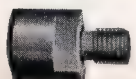
No. 30420, 3/8"-24 fem. thd. to 5/8"-11 male thd. For Aro Right-Angle Sanders & Polishers.



No. 30706, 3/8"-24 fem. thds. both ends. Universal adapter for Aro Right-Angle Attachments.



No. 30628, 3/8"-24 male thd. Used on Aro Right-Angle Attachments as adapter for 3/16", 1/4" and 5/16" chuck adapter.



No. 30629, 1/2"-20 male thd. Used on Aro Right-Angle Attachments as adapter for 3/8" and 1/2" chucks.

Collets, Extensions and Arbors



30854 3-Pc. Collet, 3/8"-24 Thread
For use on Aro Short Grinders.

Collet Body only	Collet Nut only
30853	30848

Collet complete	Size	Collet Sleeve	Size
30854-1	1/8"	30847-1	1/8"
30854-2	3/16"	30847-2	3/16"
30854-3	1/4"	30847-3	1/4"

30849 3-Pc. Collet, 5/16"-24 Thread

Used on Aro 2" Heavy-Duty Production Grinders.



30849-1	1/8"
30849-2	3/16"
30849-3	1/4"

2-Pc. Collets, 3/8"-24 Thread
Used on Aro Short Grinders.



Size	Complete Collet
3/8"	32966-1
1/2"	32966-2

Size	Body No.	Nut No.
3/8"	32926-1	30134-1
1/2"	32926-2	30134-1

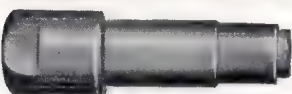
Erickson 3-Pc. Collets, 3/8"-24 Thread
Used on Aro Short Grinders.



No.	Size
32983-8	1/4"
32983-9	3/8"



30731-1 1/4" Collet, 3/8"-24 Thread
For use on Aro High-Speed or Low-Speed Right-Angle Attachments.



30292-4 2-Pc. Collett,
Used on Aro 2" Heavy-Duty Production Grinders.

1/2" Size, 5/16"-24 Thread



33225 Erickson 3-Pc. Collet

5/16"-24 Thread	Size
33225-4	1/8"
33225-6	3/16"
33225-8	1/4"



33226 Erickson 3-Pc. Collet

3/8"-24 Thread	Size
33226-4	1/8"
33226-6	3/16"
33226-8	1/4"



30285 Extension
5/16"-24 female thd., 1/4" arbor hole, 2" long, for use with Aro 2" H. D. Production Grinders.



30434 Extension
3/8"-24 female thd., 1/4" arbor hole, 2" long, for use with Aro Short Grinders.

Extensions for 2" H. D. Prod. Grinders, 5/16"-24 Fem. Thread



30473 5" long, has washer & screw, for 2" wheels with 1/4" arbor hole.

30399 6" long, 7/16"-20 thread on male end.

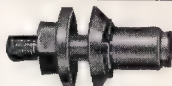
30385 6" long, equipped with 1/4" collet.



30799 Arbor
3/8"-24 fem. thd. Used on Aro Short Grinders with 3/8" arbor-hole wheels.



32473 Arbor
5/16"-24 fem. thread. Used with 3/8" arbor-hole grinding wheels.



30298 Arbor
5/16"-24 fem. thread. Used with wheels, buffers or brushes having 3/8" arbor hole.

Wheel Guards for Grinders



30569	Used on Aro 2" Heavy-Duty Production Grinders.	
31338	8" dia., for Aro Heavy-Duty Horizontal Grinders.	
31340	6" dia., for Aro Heavy-Duty Horizontal Grinders.	
32075	For Aro 7194-B Vert. Grinder. Adjustable guard.	
32596	For Aro "Brute" Grinder. Adjustable guard.	

Spiral Flange Adapters for Cup Wheel Wire Br.



32644 Used with Aro Model 7243 Vertical Wire Brush Tool.



32077 Used with 32079, at right on Aro 7195-B Vert. Wire Brush Tool.



32079 Used with 32077, at left, on Aro 7195-B Vert. Wire Brush Tool.

Wire Brushes

30229 Heavy-duty solid brush for carbon cleaning. Fits collet or chuck.

32078 No. 3 cup wire brush, 5" dia., .014 wire.



30229



32078

Radial Wire Brushes

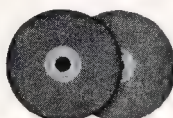


No.	Description	
30246	4" O.D. x $\frac{3}{8}$ " drive dia., .0118 wire	
31871	8" O.D. x 2" thick x $1\frac{9}{16}$ " drive dia., .014 wire.	
31872	6" O.D. x 2" thick x $1\frac{9}{16}$ " drive dia., .014 wire.	

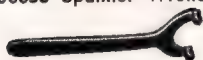
Elastic Grinding Wheels

For use with high-speed grinders.

30352	2" x $\frac{3}{8}$ " x $\frac{1}{4}$ ", for 30285 or 30434 Arbor.	
30767	2" x $\frac{3}{8}$ " x $\frac{3}{8}$ ", for 30298 or 30799 Arbor.	



30855 Spanner Wrench



$1\frac{1}{4}$ " between centers, $\frac{7}{32}$ " dia. studs. Use on 30214 sander pad nut.

32655 Pin Spanner Wrench



$\frac{7}{32}$ " dia. stud. Engages any 2" diameter shape.

Flat Wrenches



30131 $1\frac{1}{16}$ ", $\frac{9}{16}$ ", $\frac{1}{2}$ " hex.
31297 $1\frac{1}{16}$ ", $\frac{9}{16}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " hex.

32777 Hex Socket Wrench



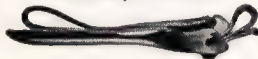
1" hex. For H.D. Grinders and Wire Brush Tools.

32122 Collet Nut Wrench



For disassembly of Erickson Collet.

245 Strap Wrench



For disassembly of large air tools.

32702 Shaft

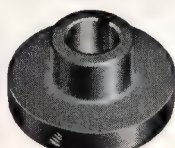
Replaces shaft on Aro 7194-B Vertical Grinder, allows use of cup wheels with non-threaded inserts. Extra-long thread accepts standard nut.



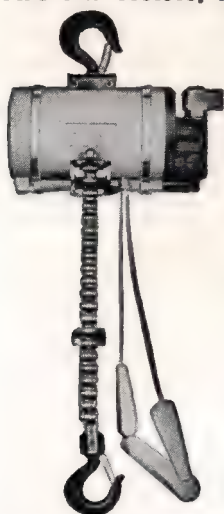
32786 Drive Flange Nut for mounting cup wheels with non-threaded inserts to Aro "Brute" Grinder. Use with 32550 at right.



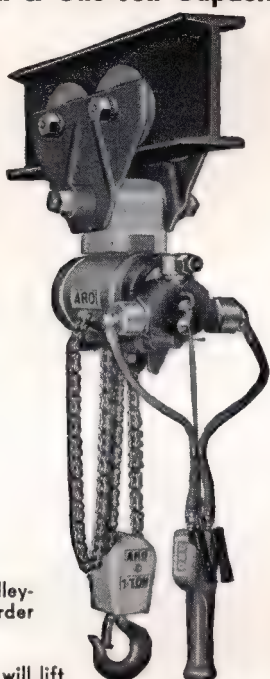
32550 Drive Flange for mounting cup wheels with non-threaded inserts to Aro "Brute" Grinder. Use with 32786 at left.



Aro Air Hoists, Half-Ton & One-Ton Capacity



Model 7700-A Half-Ton Hoist (above).



Model 7732-T One-Ton Trolley-Mounted Hoist (right). Order trolley separately.

SPEED. Hoists with standard head will lift 1,000 lbs. at 40 ft. per minute or 2,000 lbs. at 20 ft. per minute, faster than other air or electric hoists. Where FAST DESCENT is preferred over fast lift, other models are available, listed below.

CONTROL. Precision manual control, from top speed to barest movement, or any speeds in between. Lever Pendent Control models provide maximum safety and ease in speed control.

SAFETY. Top and bottom hooks have safety snap; adjustable chain stop limits lift or drop; automatic brake locks when power is shut off . . . load STAYS UP in any air line failure, but can be lowered safely and quickly with throttle control.

STRENGTH. All parts, including chain, hooks, connections, pins, swivels, supports and housing will withstand a load far above Hoist's rated capacity . . . no danger of breakage from sudden starts and stops.

DURABILITY. Vane-type motor totally enclosed, cannot burn out if stalled indefinitely and is unaffected in ordinary operation by dirt, fumes or heat. Exhaust noise is reduced to minimum.

COMPACTNESS. Over-all length 10½", housing diameter 5". Half-ton Hoist easily carried by one man. All Hoists have simple design for servicing with standard tools.

TROLLEY-MOUNTED HOISTS. All Hoists are available with trolley mounting, and hook-type Hoists can be converted to trolley mounting. On Trolley Models listed below, trolley adapter is furnished with Hoist but trolley must be ordered separately.

GENERAL SPECIFICATIONS. Standard lift, 8'. Vane-type motor, mechanical brake with bonded lining, ball- or needle-bearing mounting for all rotating or oscillating parts. 3/8" N.P.T. air inlet swivel with 180° swing; built-in oil reservoir. Pendent Control Hoists have 5' cable and hose with control unit. Trolley Hoists have trolley adapter in place of top hook . . . order trolley separately.

HALF-TON HOISTS. Min. hook-to-hook distance, 14".

Type of Control	Suspension	Model Numbers			Approx. Weight
		Standard Head Normal Descent	Fast Head Rapid Descent	Fast Head Balanced Cylinder	
Pull Cable	Hook	7700-A	7704	7706	29 lbs.
	Trolley	7700-AT	7704-T	7706-T	
Lever Pendent	Hook	7708	7709	7710	34 lbs.
	Trolley	7708-T	7709-T	7710-T	

ONE-TON HOISTS. Min. hook-to-hook distance, 19½".

Type of Control	Suspension	Model Numbers			Approx. Weight
		Standard Head Normal Descent	Fast Head Rapid Descent	Fast Head Balanced Cylinder	
Pull Cable	Hook	7725	7728	7730	42 lbs.
	Trolley	7725-T	7728-T	7730-T	
Lever Pendent	Hook	7732	7733	7734	47 lbs.
	Trolley	7732-T	7733-T	7734-T	

Aro Hoists	Half-Ton Hoists		One-Ton Hoists	
	Load Pounds	Ft. Per Minute	Load Pounds	Ft. Per Minute
	1000	40	2000	20
Standard Rate of Lift at 90 p.s.i. with Standard Head	500	60	1000	30
	300	70	600	35

Effect of Hose Sizes on Lift Rate, at Rated Capacity, for Standard-Head Hoists

Capacity		Half-Ton Hoists					One-Ton Hoists				
Air Pressure — P.S.I.		60	70	80	90	100	60	70	80	90	100
Rate of Lift	with 3/8" hose	18	27	34	38	41	9	13	17	19	20
Ft. per Min.	with 1/2" hose	29	34	39	44	48	15	17	20	22	24

Lever Pendent Control for Aro Hoists

For precision control with greater safety and less operator fatigue. Underside of handle has full-length safety-lever which becomes flush with handle when grasped. No accidental starting of Hoist. Pendent Control linked to Hoist with nylon-coated steel cable to eliminate strain on control hose. All Aro Hoists (with two exceptions below) can be converted quickly to pendent control, on the job, with only a screwdriver and a wrench.

NOTE: To convert Aro Models 7700 and 7700-S to pendent control, order Pendent Control Assembly below PLUS necessary replacement head assembly as follows:

Head Assy. No. For Hoist No.

34352	7700
34353	7700-S

Each Pendent Control Assembly below includes handle, cable, hose and necessary attachments.

Length in Feet	Lever Pendent Assy. Complete	Length in Feet	Lever Pendent Assy. Complete
4	34990-4	9	34990-9
5	34990-5	10	34990-10
6	34990-6	11	34990-11
7	34990-7	12	34990-12
8	34990-8		



Series 34990

Optional Aro Hoists with Push-Button Pendent Controls (Not Illustrated)

Available in full range of capacities, mountings and heads. Push-Button Pendent gives positive control at all times, and is not affected by any movement of Hoist. Handle is linked to Hoist by nylon-covered steel cable to eliminate strain on control hose. All Hoists listed below have standard 5' Pendent Control.

COMPLETE HOISTS WITH PUSH-BUTTON PENDENT CONTROLS

Capacity	Suspension	Standard Head Normal Descent	Fast Head Rapid Descent	Fast Head Balanced Cylinder
Half Ton	Hook	7701	7705	7707
	Trolley	7701-T	7705-T	7707-T
One Ton	Hook	7726	7729	7753
	Trolley	7726-T	7729-T	7753-T

Conversion of Pull-Cable Aro Hoists to Push-Button Pendent Control

All Aro Pull-Cable-Control Hoists (with two exceptions below) can be converted quickly to push-button pendent control, on the job, with only a screwdriver and wrench.

NOTE: Aro Hoists Models 7700 and 7700-S need replacement heads for conversion to push-button pendent control. For conversion of these models, order Pendent Conversion Kit, which includes replacement head with standard 5' push-button pendent control.

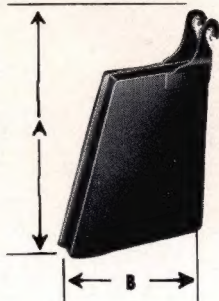
Conversion Kit	For Hoist No.	Conversion Kit	For Hoist No.
34355	7700	34356	7700-S

For all other Hoists, order pendent control assembly according to desired length. Each assembly includes handle, cable, hose and necessary attachments.

Length in Feet	Push-Button Pendent Control Assy.	Length in Feet	Push-Button Pendent Control Assy.
4	33990-4	9	33990-9
5	33990-5	10	33990-10
6	33990-6	11	33990-11
7	33990-7	12	33990-12
8	33990-8		

Accessories for Aro Air Hoists

CHAIN BASKETS. For gathering chain while Hoist is lifting. Helps prevent snagging or kinking of chain. Easily attached to any Aro Hoist. Baskets for Half-Ton Hoists (see illustration) furnished with cable and screw for mounting. Baskets for One-Ton Hoists have V-bracket for rigid, triangular mounting.



Used on	Basket No.	For Lift of	A	B
Half-Ton Hoists	33446	8'	13 ⁷ / ₈ "	8 ⁵ / ₈ "
	33516	16'	17 ⁵ / ₈ "	12"
One-Ton Hoists	34384	8'	19 ¹ / ₂ "	17"
	34385	16'	29"	20"



EXTRA LENGTHS LOAD CHAIN. Made of finest alloy steel, designed specifically for hoists. Will withstand load far in excess of rated capacity. To order **CORRECT LENGTH**, see instructions below.

For Half-Ton Hoists	33364-9 through 33364-25	Dash No. shows length in feet. Order desired lift footage PLUS one foot for assembly.
For One-Ton Hoists	34332-9 through 34332-25	Dash No. shows ONE-HALF the length; dash 9 is 18', etc. When ordering, compute desired lift footage PLUS 2' for assembly.

EXTRA LENGTHS PULL CABLE. For pull-type cable controls. Steel cable with nylon covering for extra strength and resistance to wear. Order two lengths for each Hoist. Nos. 33323-3, -4, -6, -12 or -15. Dash numbers indicate length in feet.

Special lengths of load chain or pull cable, other than those listed above, available through your Authorized Aro Industrial Distributor.

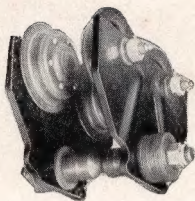
PLAIN HOOK ASSEMBLIES. Used where larger throat opening is desired, or where Hoist is constantly being carried to different work stations. Throat openings: half-ton hooks, 1¹/₁₆"; one-ton hooks, 1¹/₄".



No. 34371 Plain Hook Assembly

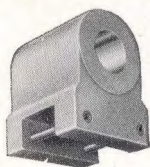
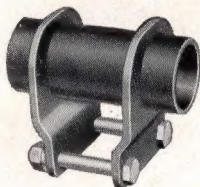
Used On	Part No.	Description
Half-Ton Hoists	33471 Top	Permanently assembled, as shown, with thrust balls and bracket at top of hoist.
	33472 Bottom	Permanently assembled (not illustrated) with thrust balls and bucket for bottom of chain.
One-Ton Hoists	34342 Top or Bottom	Hook only (not an assembly) usable either at top of hoist or bottom of chain.

MODEL 7702 HALF-TON TROLLEY. Adjusted with spacers to fit I-beams 4" to 10" high, having minimum width of $2\frac{21}{32}$ " and maximum width of $5\frac{3}{32}$ ". Deep flanges hold wheels on track, ball bearings give smooth travel. Grease fittings on wheels for lubrication. Receives upper hook of Hoist, or can be used with Model 33473 Trolley Adapter below for direct mounting on Hoist.



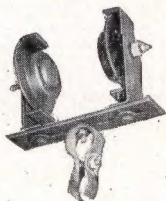
MODEL 7727 ONE-TON TROLLEY. Similar to above but fits I-beams 5" to 12" high, with minimum width of 3" and maximum width of $5\frac{5}{8}$ ".

MODEL 33473 HALF-TON TROLLEY ADAPTER. Mounts directly on any half-ton Hoist and replaces top hook. Use with Model 7702 Half-Ton Trolley above. Rigid mounting regardless of beam width.



MODEL 34386 ONE-TON TROLLEY ADAPTER. Mounts directly on any I-ton Hoist and replaces top hook. Use with Model 7727 Trolley above. Made of tough cast aluminum, furnished with mounting pins.

MODEL 7703 HOSE TROLLEY. Handles air hose from $1/4$ " to $1\frac{1}{4}$ " O.D. and is used on Trolley-Mounted Hoist applications. Prolongs hose life and speeds repetitive operations. Adjusts firmly to I-beams 3" to 10" high, having min. width of $2\frac{3}{8}$ " and max. width of $5\frac{3}{32}$ ". One Trolley recommended for each 8' hose interval.



STANDARD WARRANTY

Following the reasonable assumption that any inherent defect which might prevail in a product will become apparent to the user within three months from date of purchase, all equipment of our manufacture is warranted against defects in workmanship and material under normal use and service. We will repair or replace, if sent to our factory, transportation charges prepaid, any equipment or part thereof which shall within 90 days after delivery to the original purchaser indicate upon our examination to have been defective.

Our obligation is contingent upon proper use in accordance with factory recommendations and instruction and shall not apply to equipment which has been subject to misuse, negligence, accident or tampering in a way so as to affect its normal performance.

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